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JUN 11 1969

CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE

and

OREGON STATE UNIVERSITY

and

STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above
in cooperation with other Federal, State and private organizations.

AS OF
APR. 1, 1969

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80521
Idaho	P. O. Box 38, Boise, Idaho 83707
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

APRIL 1, 1969

Issued by

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ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.



Released by

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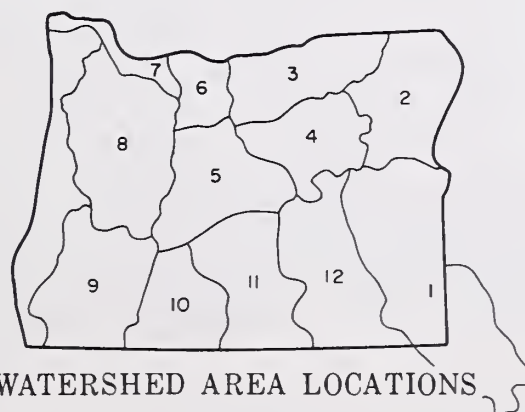
SOIL CONSERVATION SERVICE
1218 S W WASHINGTON ST.
PORTLAND, OREGON 97205

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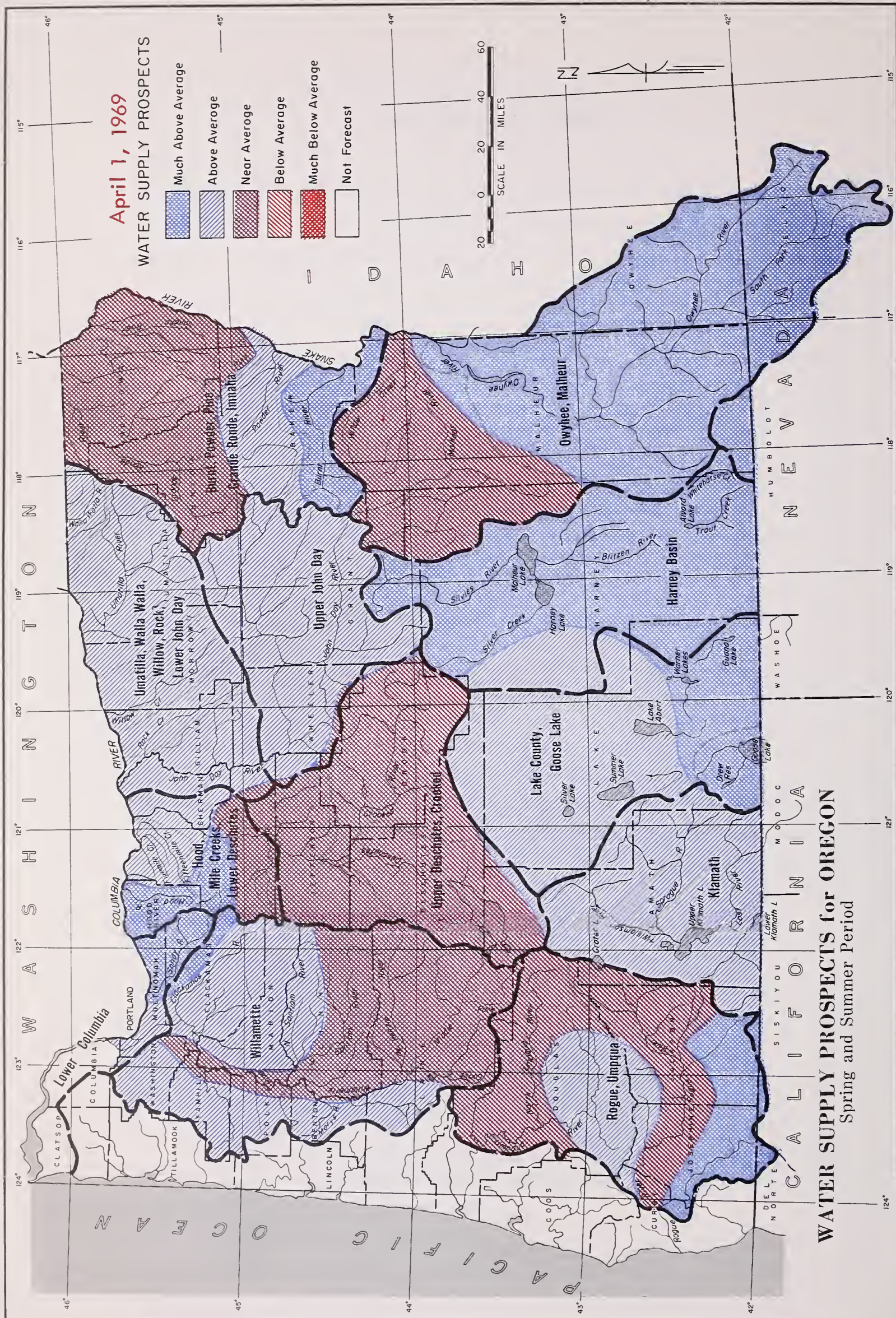
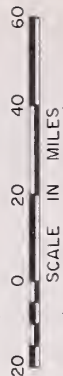
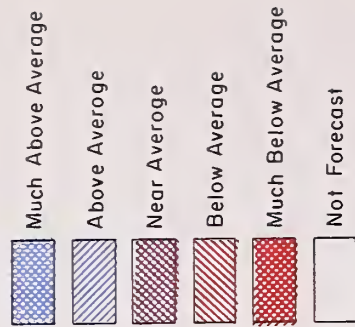
DETAILED WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

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BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA.....	AREA 2
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY.....	AREA 3
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UPPER DESCHUTES, CROOKED.....	AREA 5
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WATERSHED AREA LOCATIONS

WATER SUPPLY PROSPECTS



WATER SUPPLY PROSPECTS for OREGON

Spring and Summer Period

Spring and Summer Period

WATER SUPPLY OUTLOOK for OREGON

April 1, 1969

Near average to above average water supplies is the outlook for Oregon water users this coming spring and summer. The excellent mountain snowpack will produce average to above average streamflow throughout the State.

SNOW COVER

Warm temperatures and below average snow accumulation during March brought a decrease to the lower elevation mountain snowpack, however, it is still much above average and will make more than the usual contribution to streamflow. The snowpack currently ranges from 116 percent on the Upper Deschutes River and in the Wallowa Mountains to near 200 percent on the Owyhee watershed.

PRECIPITATION

March precipitation as reported by the U. S. Weather Bureau was much below average. Precipitation for the November through March winter period has been above normal except in the southwest corner of the state and in Wasco County where it was near 90 percent of average.

RESERVOIR STORAGE

As of April 1, twenty-five Oregon reservoirs were reporting 2,124,000 acre feet of usable storage. This is near the average of 2,218,000 acre feet.

SOIL MOISTURE

Mountain soils around the State are thoroughly saturated and will benefit the snowmelt runoff.

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STREAMFLOW

March streamflow was below average in Southwest Oregon, much above average on the Owyhee and near average elsewhere in the State.

Selected April 1 forecasts of spring and summer streamflow are as follows:

<u>Stream</u>	<u>Period</u>	<u>Forecast</u>	<u>% of 1953-67 Avg.</u>
Oeyhee Res. net Inflow	Apr-Sept	752,000 a.f.	251
Deschutes at Benham Falls	Apr-Sept	530,000 a.f.	89
Grande Ronde nr. La Grande	Apr-Sept	187,000 a.f.	107
Hood near Hood River	Apr-Sept	444,000 a.f.	132
Mid. Fk. Willamette blw. N. Fk.	Apr-Sept	898,000 a.f.	108
Rogue at Raygold	Apr-Sept	1,006,000 a.f.	107
Upper Klamath Lake net Inflow	Apr-Sept	775,000 a.f.	125

SUMMARY

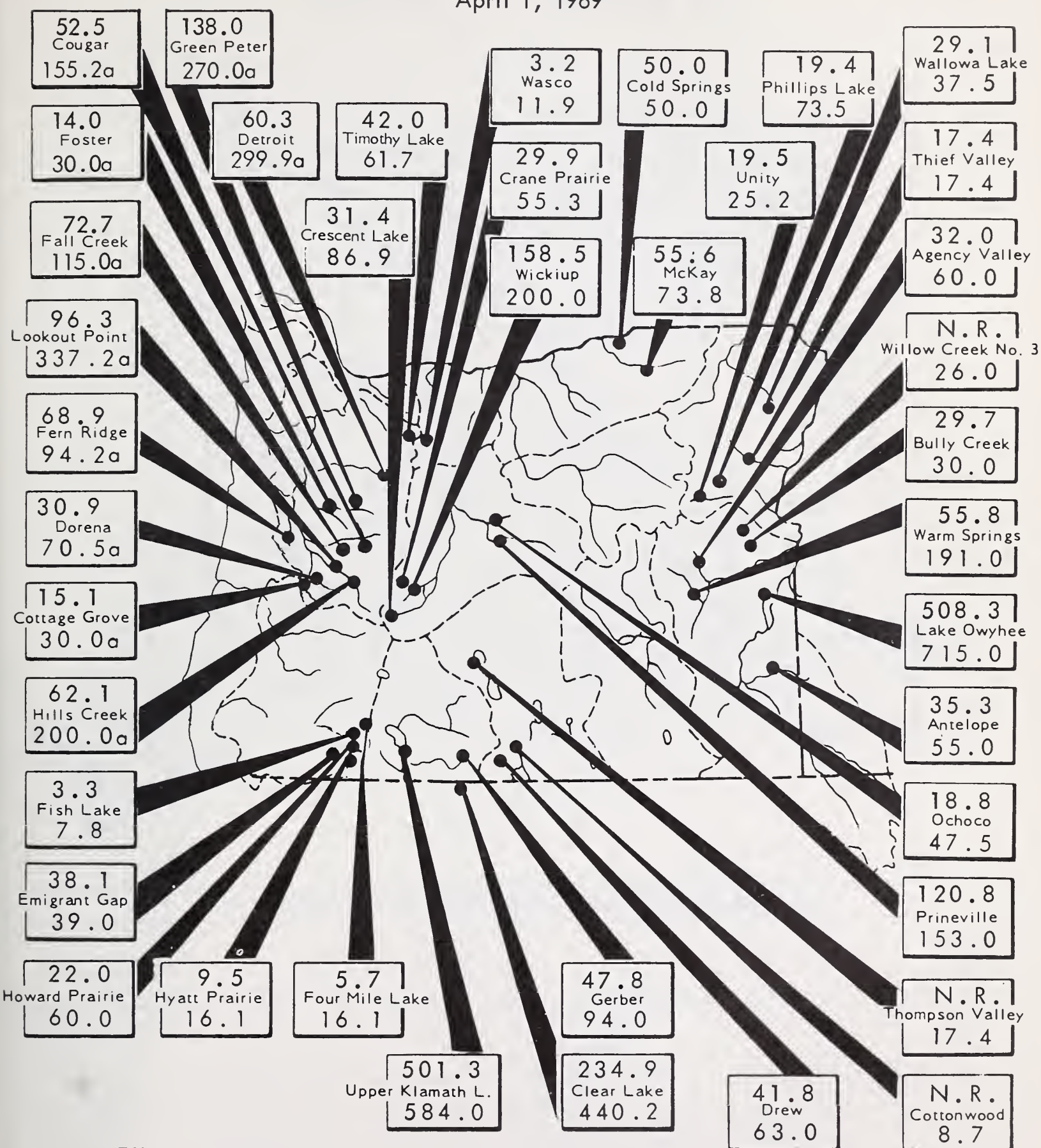
Although March precipitation was much below average and streamflow forecasts have been reduced from last month's outlook, Oregon will still have good water supplies this summer.



STORAGE STATUS of OREGON RESERVOIRS

usable contents in thousands of acre feet

April 1, 1969



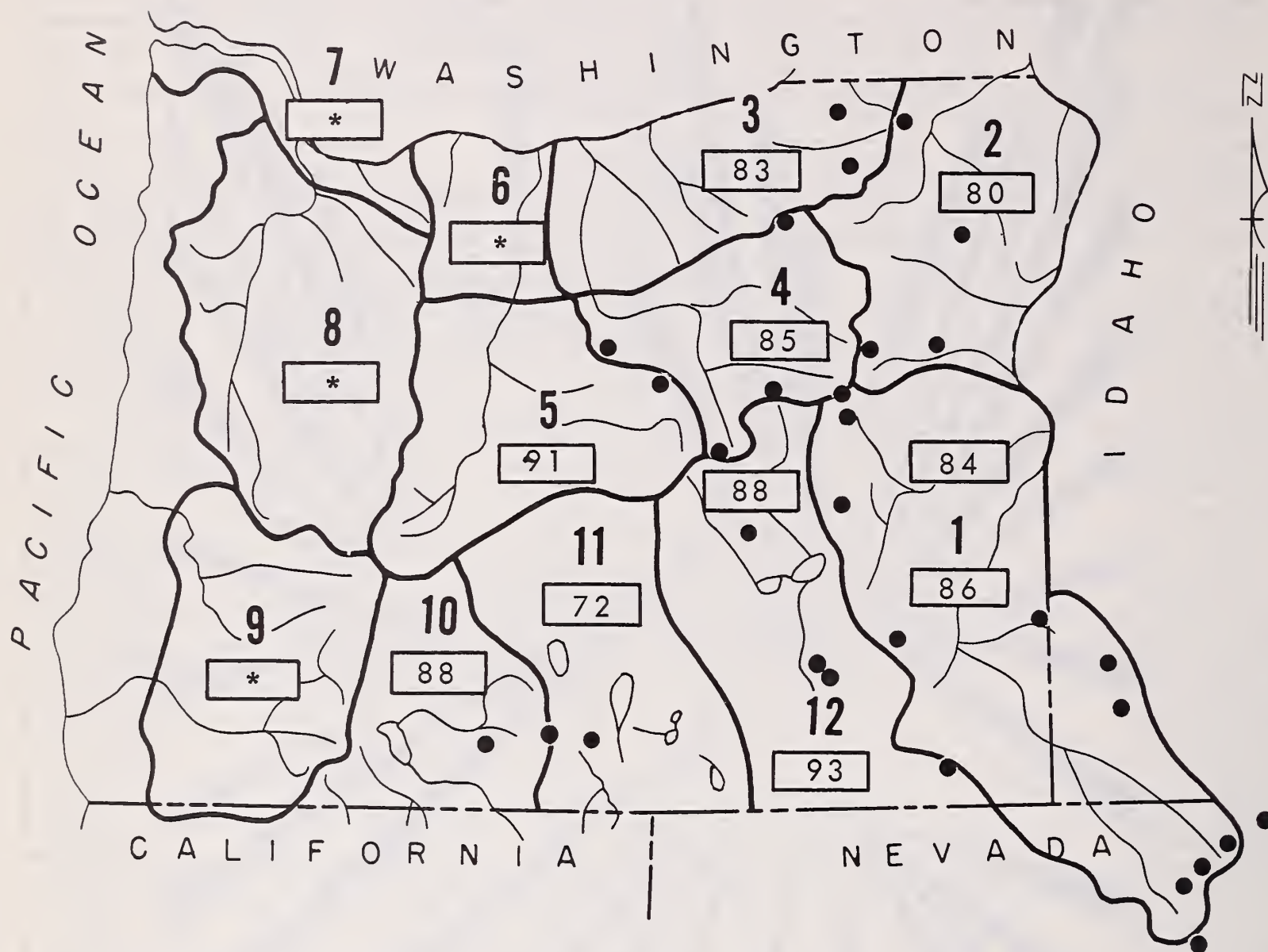
EXPLANATION

687.0	---	Contents
Lake Owyhee		
715.0	---	Capacity

(a) Multiple purpose reservoir - space reserved for flood runoff.
N. R. - No report.

MOUNTAIN SOIL MOISTURE in OREGON as percent of capacity

April 1, 1969

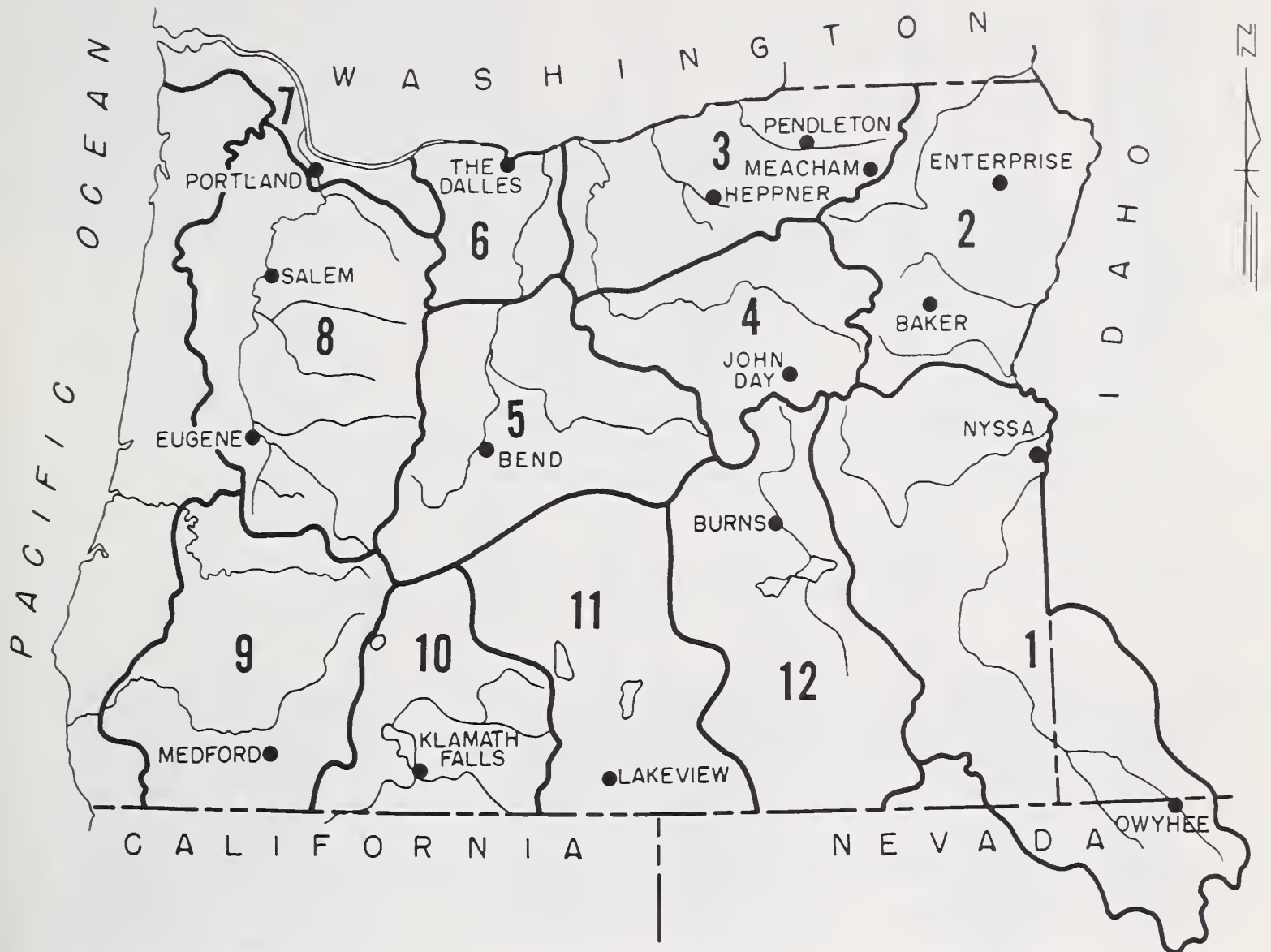


● Soil Moisture Station

**Moisture studies not yet developed in these areas.*

VALLEY PRECIPITATION in OREGON ^a

April 1, 1969



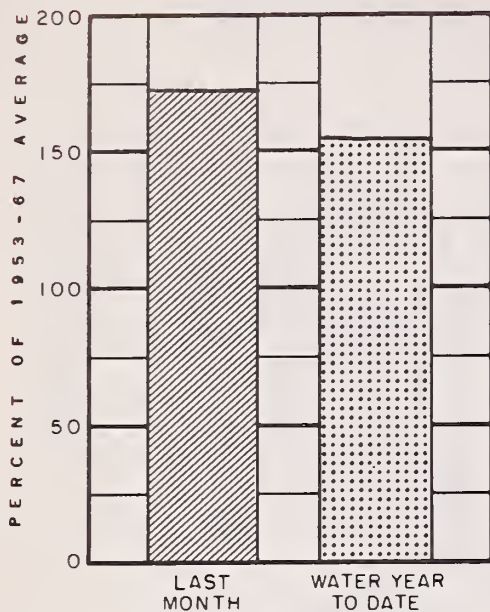
PRECIPITATION as PERCENT of the 1953-67 AVERAGE

STATION	LAST MONTH	WATER ^b YEAR TO DATE	STATION	LAST MONTH	WATER ^b YEAR TO DATE
Baker Apt.	20	135	Lakeview	50	125
Bend	93	75	Meacham	63	92
Burns	27	131	Medford Apt.	15	87
Enterprise	15	95	Nyssa	27	140
Eugene Apt.	53	124	Pendleton Apt.	63	120
Heppner	61	127	Portland Apt	31	119
John Day	58	177	Salem Apt.	32	113
Klamath Falls Apt.	28	93	The Dalles	54	112
			Owyhee (Nevada)	77	150

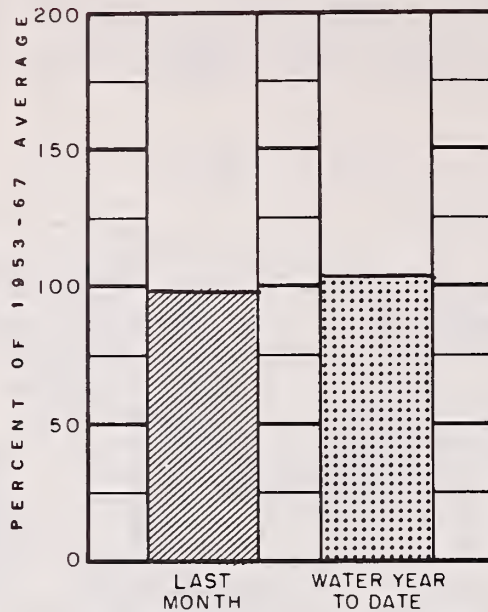
(a) Preliminary data furnished by the U.S. Weather Bureau. (b) Oct. 1 to date. (c) Report delayed.

CURRENT OREGON STREAMFLOW

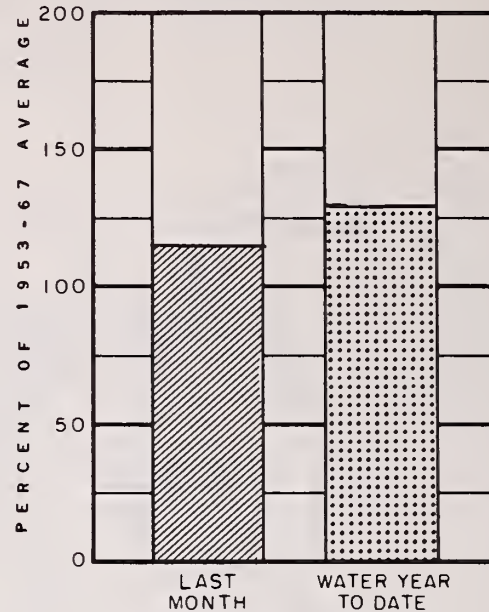
April 1, 1969



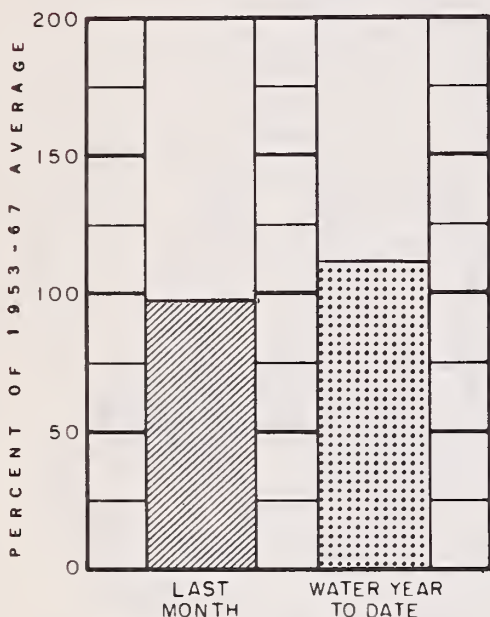
Owyhee Lake net inflow



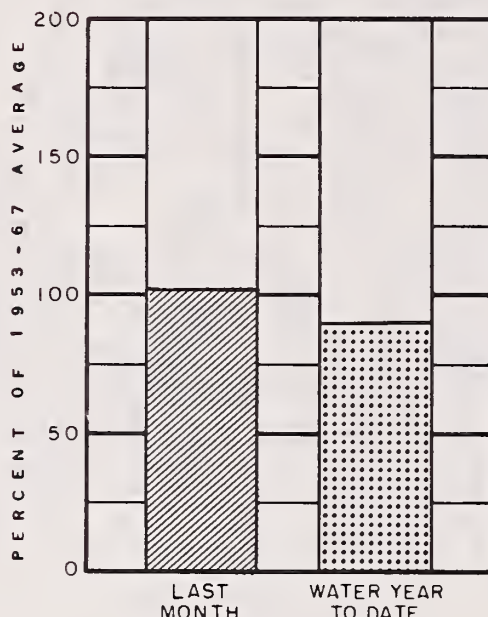
Grande Ronde at La Grande



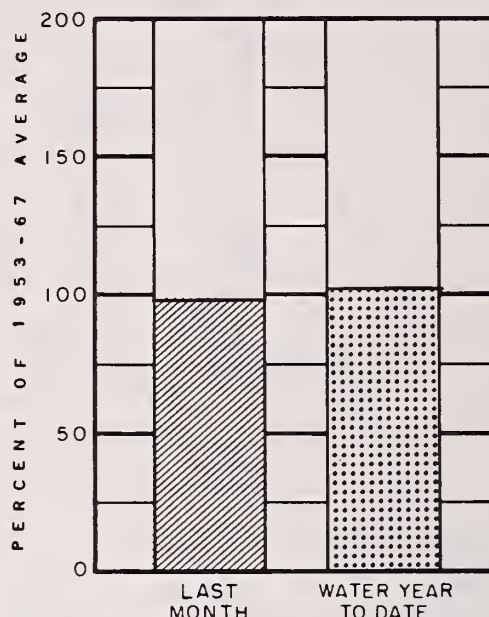
Umatilla at Pendleton



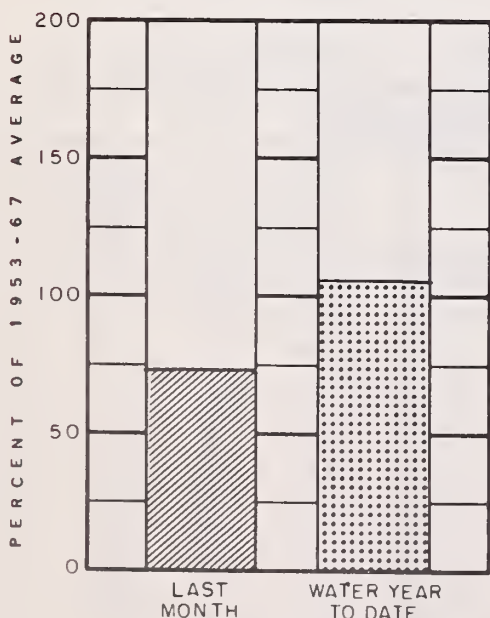
John Day at Service Creek



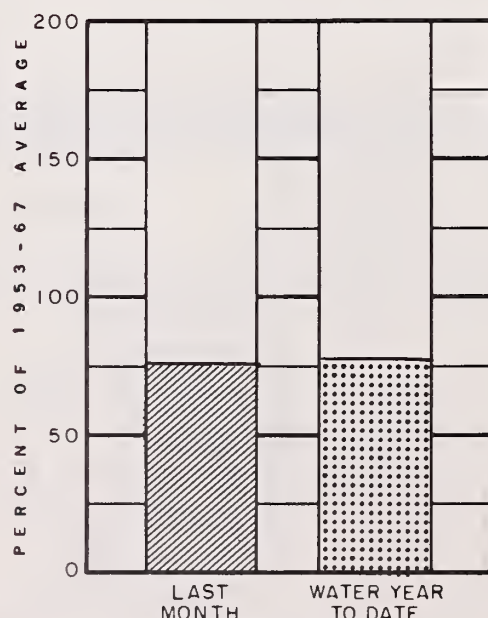
Deschutes at Moody



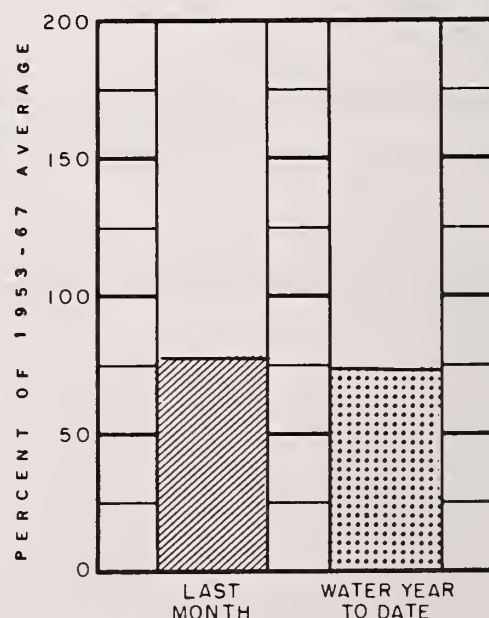
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



Pogue at Raygold



Upper Klamath Lake net inflow

Data furnished by U.S. Geological Survey; The Pacific Power and Light Co.; and North and South Boards of Control Owyhee Project.

WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS

OREGON

as of

APRIL 1, 1969



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

An above average water supply is the outlook for most of Malheur County water users this coming spring and summer. An excellent snowpack will produce streamflows far above average throughout the county.

SNOW COVER

Although March brought little snow to the area the snow cover in the mountains is still close to 160% of average. Low elevation snow is especially high for this time of year.

PRECIPITATION

According to the U. S. Weather Bureau precipitation at valley stations was only 36 percent of average. However, during the entire winter period, November through March, it has been 145% of normal.

SOIL MOISTURE

Mountain soils on both the Malheur and Owyhee watersheds are saturated and will benefit the snowmelt runoff.

RESERVOIR STORAGE

On April 1, Bully Creek, Warm Springs and Agency Valley were storing 117,500 acre feet compared to an average of 176,200 a.f. These reservoirs should furnish an average supply of water to the Vale-Oregon Irrigation District.

Owyhee's contents on April 1 were 508,300 a.f. compared to 476,800 acre feet on the average.

Antelope contains 35,300 a.f. compared to its average of 19,100 acre feet.

STREAMFLOW

April-July forecasted streamflow is as follows:

<u>Stream Station</u>	<u>Forecast</u>	<u>Percent of 1953-67 Average</u>
Jordan Creek abv. Lone Tree Cr.	165,000 a.f.	194
Owyhee Reservoir net Inflow	114,000 a.f.	160
Malheur near Drewsey	75,000 a.f.	136
Malheur, No. Fk. at Beulah	732,000 a.f.	251

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Boulder Creek	Excellent	Average
Bully Creek	Excellent	Average
Cow Creek	Excellent	Average
Jordan Creek	Excellent	Average
Jordan Valley Irrig. Dist.	Excellent	Excellent
McDermitt Creek	Excellent	Average
Oregon Canyon Creek	Excellent	Average
Owyhee Project	Excellent	Excellent
Succor Creek	Excellent	Average
Tenmile Creek	Excellent	Average
Vale-Oregon Irrig. Dist.	Average	Average
Warm Springs Irrig. Dist.	Average	Average
Willow Creek (Reservoired)	Average	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Agency Valley	60.0	32.0	42.5	41.5
Antelope	55.0	35.3	21.3	19.1
Bully Creek	30.0	29.7	24.1	17.4
Owyhee	715.0	508.3	460.7	476.8
Warm Springs	191.0	55.8	110.3	117.3
Willow Creek #3	26.0	b		

STREAMFLOW FORECASTS^a (1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
1780	Jordan Creek above Lone Tree Creek	165	April-July	85	194
2140	Malheur near Drewsey	114	April-July	71	160
		115	April-Sept.	72	160
2175	Malheur, North Fork at Beulah ^d	75	April-July	55	136
		80	April-Sept.	60	133
1825	Owyhee Reservoir net Inflow ^k	732	April-July	281	260
		752	April-Sept.	300	251

SOIL MOISTURE

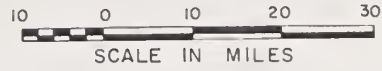
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Bear Creek (Nev.)	7800	72	16.8	2/28	11.9 ^f	10.8	10.1
Big Bend (Nev.)	6700	48	16.7	1/28	13.0 ^f	15.8	15.6
Blue Mtn. Springs	5900	42	16.9	3/28	11.6	12.6	11.8
Crane Prairie	5375	48	18.2	3/28	17.7	16.0	16.4
Folly Farm	4450	30	12.5	b		- -	- -
Jack Cr., Lower (Nev.)	6800	48	8.6	b		8.3	8.3
Jordan Valley	4390	48	19.3	2/25	16.5 ^f	15.2	- -
Mud Flat (Ida.)	5500	48	12.8	3/2	14.3 ^f	14.4	14.4
Rodeo Flat (Nev.)	6800	42	11.0	1/29	11.0 ^f	10.9	10.6
Stinking Water Summit	4800	48	21.9	3/25	21.5	- -	- -
Taylor Canyon (Nev.)	6200	48	15.1	1/28	13.0 ^f	14.7	14.7
Triangle (Ida.)	5150	48	16.6	b		- -	- -

SNOW

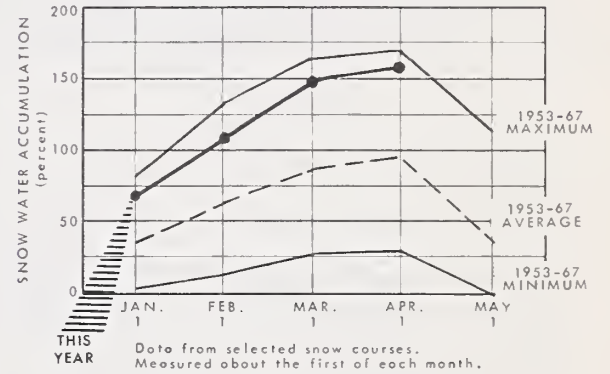
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1953-1967 AVERAGE
Antelope Ridge (Ida.)	5900	3/26	41	16.3	T	4.0 ^h
Barney Creek	5950	3/27	31	10.4	2.2	7.9
Battle Creek (Ida.)	5700	3/24	18	6.8	0.0	2.0 ^m
Bear Creek (Nev.)	7800	3/26	74	27.3	16.6	19.1
Big Bend (Nev.)	6700	3/24	36	10.4	T	8.1
Blue Mountain Springs	5900	3/28	44	16.9	8.8	15.5
Buck Pasture	5700	3/24	18	6.8	0.0	2.2 ^m
Buckskin, Lower (Nev.)	6700	3/26	41	16.1	1.1	7.0
Buckskin, Upper (Nev.)	7200	3/26	38	14.1	4.0	9.2

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS

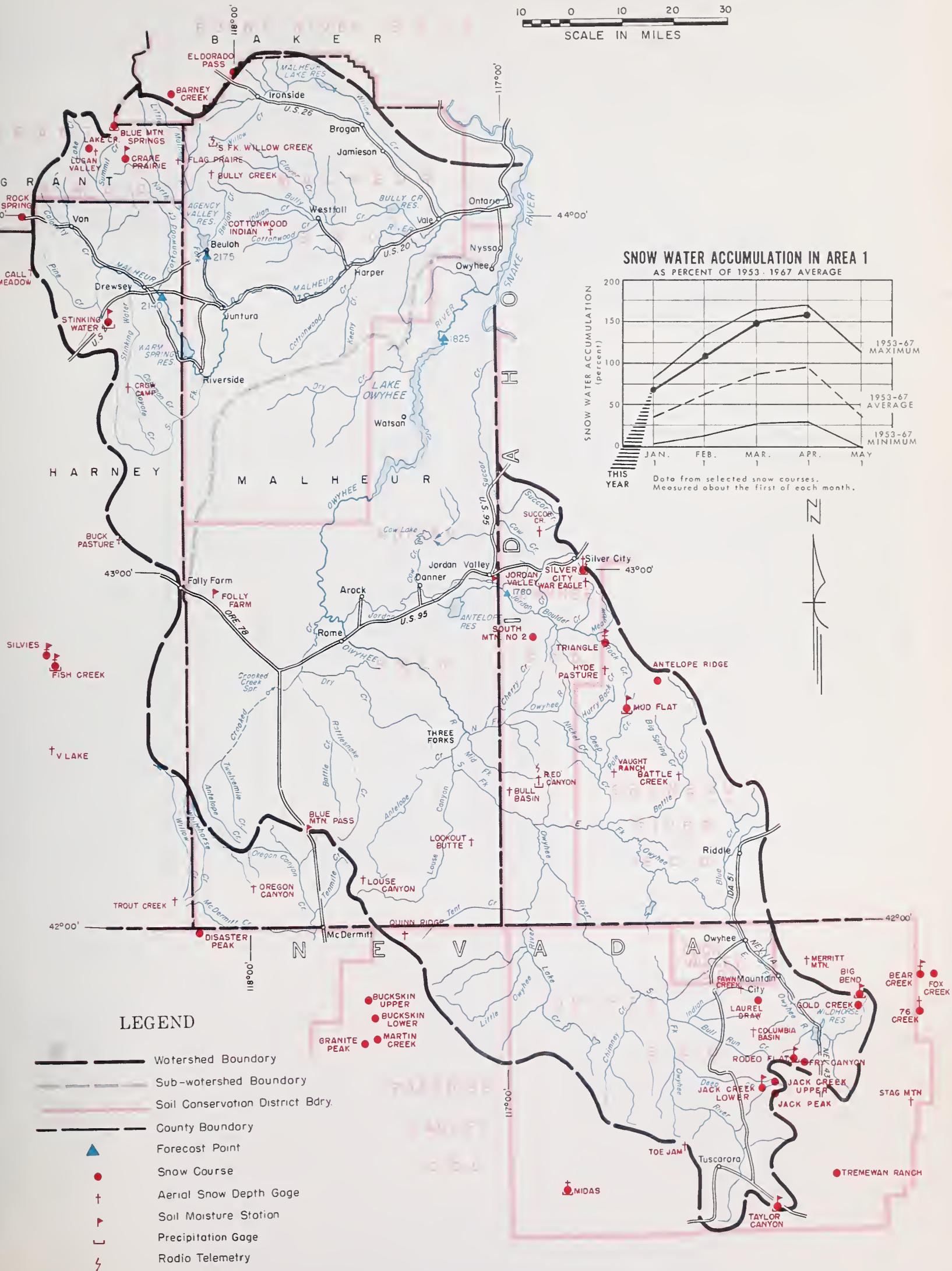


SNOW WATER ACCUMULATION IN AREA 1
AS PERCENT OF 1953-1967 AVERAGE



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- + Aerial Snow Depth Gage
- ▶ Soil Moisture Station
- └─┘ Precipitation Gage
- ⚡ Radio Telemetry



SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1953-1967 AVERAGE
NAME	ELEVATION					
Bull Basin ^e (Ida.)	5600	3/24	9	3.2	0.0	0.4 ^m
Bully Creek ^e	5300	3/24	14	5.3	0.0	0.7 ^m
Call Meadow ^e	5340	3/24	24	9.1	0.0	3.0 ^m
Columbia Basin ^e (Nev.)	6650	3/29	48	19.2	0.0	- -
Cottonwood-Indian ^e	4320	3/24	3	1.0	0.0	0.1 ^m
Crane Prairie	5375	3/28	30	10.8	2.9	8.7
Crow Camp ^e	5500	3/24	8	2.7	0.0	0.8 ^m
Disaster Peak (Nev.)	6500	3/25	65	28.7	1.2	9.5
Eldorado Pass	4600	3/27	22	7.6	0.0	0.6 ^h
Fawn Creek ^e (Nev.)	7000	3/29	24	8.4	0.0	- -
Fish Creek	7900	3/27	81	32.2	15.2	25.0
Flag Prairie ^e	4750	3/24	24	9.1	0.0	1.8 ^m
Fox Creek (Nev.)	6800	3/26	43	16.1	5.4	8.9 ^h
Fry Canyon (Nev.)	6700	3/24	36	11.9	0.0	6.3
Gold Creek (Nev.)	6600	3/24	25	8.0	0.0	4.7
Granite Peak (Nev.)	7800	3/26	60	25.6	11.8	12.6 ^h
Hyde Pasture ^e (Ida.)	5800	3/24	28	10.6	0.0	2.0 ^m
Jack Creek, Lower (Nev.)	6800	3/26	18	5.3	T	2.8
Jack Creek, Upper (Nev.)	7250	3/26	37	12.4	4.3	9.8
Jack Peak (Nev.)	8420	No Survey			19.4	25.7 ^h
Lake Creek	5120	3/28	28	10.0	2.2	9.7
Laurel Draw (Nev.)	6700	No Survey			0.0	7.2 ^h
Logan Valley ^e	5100	3/24	18	6.8	0.0	5.4 ^m
Lookout Butte ^e	5650	3/24	0	0.0	0.0	T ^m
Louse Canyon ^e	6440	3/24	33	12.5	0.0	1.6 ^h
Martin Creek (Nev.)	6700	3/26	54	22.5	4.8	8.2
Merritt Mountain ^e (Nev.)	7000	3/29	36	14.8	0.0	- -
Midas (Nev.)	7200	3/24	44	17.8	T	1.6 ^h
Mud Flat (Ida.)	5500	3/26	33	12.6	T	4.2 ^h
Oregon Canyon ^e	6950	3/24	32	12.2	7.0	4.4 ^h
Quinn Ridge ^e (Nev.)	6300	3/24	12	4.1	0.0	0.7 ^h
Red Canyon ^e (Ida.)	6500	3/26	24	9.1	0.0	4.4 ^m
Rock Spring	5100	3/31	15	4.8	T	4.2
Rodeo Flat (Nev.)	6800	3/24	29	8.9	0.0	5.8
76 Creek (Nev.)	7100	3/29	50	21.0	7.8	10.9 ^h
Silver City (Ida.)	6400	3/27	57	22.7	7.0	14.4 ^h
Silvies	6900	3/27	57	23.2	2.5	12.3
South Mountain #2 (Ida.)	6340	3/28	48	21.7	4.4	10.9
Stag Mountain ^e (Nev.)	7800	3/29	34	13.9	0.0	- -
Stinking Water	4800	3/25	23	7.3	0.0	0.3 ^h
Succor Creek ^e (Ida.)	6100	3/24	24	9.1	0.0	4.9 ^m
Taylor Canyon (Nev.)	6200	3/26	33	10.4	0.0	2.9
Toe Jam ^e (Nev.)	7700	3/29	48	19.2	2.0	- -
Tremewan Ranch (Nev.)	5700	3/24	15	3.7	0.0	0.0
Triangle ^e (Ida.)	5150	3/24	0	0.0	0.0	0.4 ^m
Trout Creek ^e	7800	3/24	33	12.5	2.4	7.9
"V" Lake ^e	6600	3/29	0	0.0	0.0	3.8
Vaught Ranch ^e (Ida.)	5950	3/24	24	9.1	0.0	- -
War Eagle ^e (Ida.)	7700	3/24	66	25.1	6.6	- -

WATER SUPPLY OUTLOOK BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS OREGON

as of

April 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Near average water supplies is the outlook for Baker, Union and Wallowa Counties this coming spring and summer. The snowpack is about normal for this time of year and should produce near average streamflow.

SNOW COVER

March storms brought little increase to the snowpack. The snow cover in the area is the lowest in the state, but it is still 116 percent of average.

PRECIPITATION

According to the U. S. Weather Bureau, precipitation in March was much below average. However, during the entire November-March winter period it has been near average.

SOIL MOISTURE

Soils are well wetted and as a result will benefit the snowmelt runoff.

RESERVOIR STORAGE

On April 1 Wallowa Lake was holding 29,100 acre feet. This is 125 percent of average. Unity Reservoir contents were 19,500 acre feet compared to its average of 17,100 acre feet. Phillips Lake contained 19,400 acre feet on April 1.

STREAMFLOW

Forecasted April-September streamflow is as follows:

<u>Station</u>	<u>Forecast</u>	<u>Percent of 1953-67 Average</u>
Grande Ronde at La Grande	187,000 a.f.	107
Powder near Baker	74,000 a.f.	119
Burnt near Hereford	50,000 a.f.	143
Wallowa, East Fk. nr. Joseph	12,800 a.f.	107
Eagle Creek near Skull Creek	209,000 a.f.	115
Imnaha near Imnaha	302,000 a.f.	98

Report prepared by

TOM GEORGE

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Alder Slope	Average	Average
Baker Valley	Average	Average
Big Creek	Average	Average
Clover Cr. (nr. N. Powder)	Average	Average
Cove	Average	Average
Durkee	Average	Average
Eagle Valley	Average	Average
Elgin	Average	Average
Enterprise-Joseph	Average	Average
Hereford-Bridgeport	Average	Average
Imnaha River	Average	Average
La Grande-Island City	Average	Average
Lostine-Wallowa	Average	Average
No. Powder River-Wolf Creek	Average	Average
Pine Valley	Average	Average
Powder River-Elk Creek	Average	Average
Summerville	Average	Average
Sumpter Valley	Average	Average
Union-Hot Lake	Average	Average
Unity	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Thief Valley	17.4	17.4	- -	- -
Unity	25.2	19.5	25.6	17.1
Wallowa Lake	37.5	29.1	33.0	23.2

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Blue Mtn. Summit	5100	36	16.8	3/28	11.5	11.7	12.3
Dooley Mountain	5430	36	9.2	3/24	3.5	6.6	4.0
Emigrant Springs	3925	48	22.3	3/25	21.4	20.4	20.1
Ladd Summit	3730	48	18.9	3/24	10.7	10.5	14.2
Moss Springs	5850	42	25.8	3/28	14.3	14.3*	14.6
Tollgate	5070	48	23.6	3/27	17.7	18.6*	18.8

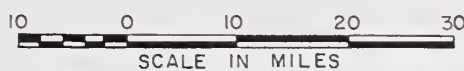
*Accuracy questioned.

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

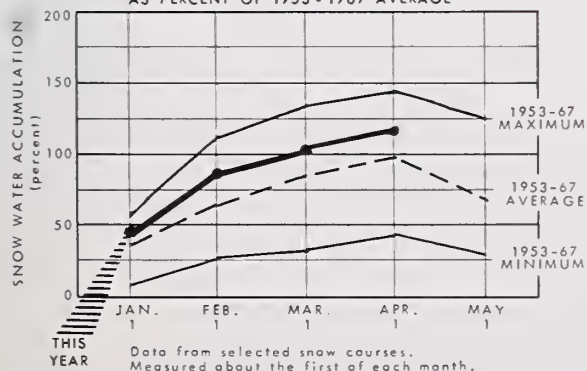
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3305	Bear near Wallowa	68	April-Sept.	66	103
2730	Burnt near Hereford ^d	48	April-June	34	141
		50	April-Sept.	35	143
3200	Catherine near Union	69	April-Sept.	64	108
2882	Eagle Creek above Skull Creek	192	April-July	168	114
		209	April-Sept.	182	115
3190	Grande Ronde at La Grande	184	April-July	172	107
		187	April-Sept.	175	107
3295	Hurricane near Joseph	47	April-Sept.	47	100
2920	Imnaha at Imnaha	302	April-Sept.	307	98
3300	Lostine near Lostine	130	April-Sept.	125	104
2755	Powder near Baker	71	April-July	60	118
		74	April-Sept.	62	119
3250	Wallowa, East Fork near Joseph ^d	10.0	April-July	9.5	105
		12.8	April-Sept.	12.0	107

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 2
AS PERCENT OF 1953-1967 AVERAGE



LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- Soil Conservation District Bay
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- † Soil Moisture Station
- † Aerial Snow Depth Gage
- ⌈ Precipitation Gage

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Aneroid Lake #1	7480	3/26	107	44.8	34.4	37.2 <i>h</i>
Aneroid Lake #2	7300	3/27	97	40.4	29.0	32.9
Anthony Lake	6700	3/27	67	26.5	19.5	27.7
Bald Mountain <i>e</i> (Ore.)	6700	3/28	37	14.1	9.7	24.6 <i>m</i>
Barney Creek	5950	3/27	31	10.4	4.2	7.9
Beaver Reservoir	5340	3/26	40	14.4	5.9	11.4
Big Sheep <i>e</i>	6200	3/29	71	26.3	24.0	23.0 <i>m</i>
Blue Mountain Summit	5098	3/28	30	10.5	3.0	7.4
Bourne	5800	3/26	44	16.5	6.6	15.0
County Line	4800	3/30	14	5.0	0.0	5.6
Dooley Mountain	5430	3/24	38	13.6	4.2	7.8
Eilertson Meadows	5400	3/25	40	14.6	7.3	11.3
Eldorado Pass	4600	3/27	22	7.6	0.0	0.6 <i>h</i>
Gold Center	5340	3/26	40	14.8	6.5	12.2
Goodrich Lake	6775	4/1	96	39.5	35.9	36.2
Intake House	4930	3/25	37	12.7	7.7	- -
Little Alps	6200	3/27	50	17.5	7.9	14.7 <i>h</i>
Little Antone	5000	3/27	21	8.0	0.0	- -
Lucky Strike	5050	3/27	43	15.2	4.0	13.6 <i>h</i>
Meacham	4300	3/25	36	13.3	0.0	8.8
Mirror Lake <i>e</i>	8200	3/28	137	61.7	79.0	66.9 <i>m</i>
Moss Springs	5850	3/28	67	24.0	14.8	24.1
Power Plant	3990	3/25	20	6.5	0.0	- -
Schneider Meadows	5400	3/28	82	32.8	25.3	29.9
Schoolmarm	4775	3/30	10	3.9	0.1	4.1
Standley <i>e</i>	7400	3/28	92	36.8	26.0	30.2 <i>m</i>
Taylor Green	5740	3/28	47	17.0	10.6	16.6
Tipton	5100	3/28	30	11.2	2.6	9.6
Tollgate	5070	3/27	78	32.1	3.3	26.5
TV Ridge <i>e</i>	7000	3/28	57	21.7	18.0	- -



WATER SUPPLY OUTLOOK UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

OREGON

as of

APRIL 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Above average water supplies is the outlook for Gilliam, Morrow and Umatilla Counties this coming spring and summer.

SNOW COVER

Although March storms brought little increase to the snowpack, it is still much above average. It is currently 130 percent of normal for this time of year.

PRECIPITATION

March precipitation was only 57 percent of average. However, the long term period, November-March, was 115 percent of normal according to the U. S. Weather Bureau.

SOIL MOISTURE

Soils are now 83 percent of capacity and will absorb less snowmelt than usual.

RESERVOIR STORAGE

On April 1 Cold Springs Reservoir contained 50,000 acre feet. This is 100% of usable capacity.

McKay was holding 55,600 acre feet. This is 118 percent of average.

STREAMFLOW

Streamflow in the area during March was above normal reflecting the melt of low elevation snow from the warmer than usual temperatures.

Forecasted spring and summer streamflow is as follows:

<u>Stream</u>	<u>Period</u>	<u>Forecast</u>	<u>% of 1953-67 Avg.</u>
Butter Cr. near Pine City	Apr-July	11,200 a.f.	130
McKay near Pilot Rock	Apr-Sept	33,000 a.f.	118
Umatilla at Pendleton	Apr-Sept	184,000 a.f.	119
N. Fk. Walla Walla nr. Milton	Apr-Sept	20,000 a.f.	125
S. Fk. Walla Walla nr. Milton	Apr-Sept.	77,000 a.f.	115

Report prepared by

TOM GEORGE

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.)

March 1, 1969

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Walla Walla River, No. Fk.	Average	Average
Walla Walla River, So. Fk.	Average	Average
Walla Walla River, Main	Average	Average
Walla Walla River, Little	Average	Average
Couse Creek	Excellent	Average
Dry Creek	Excellent	Average
Pine Creek	Excellent	Average
Umatilla River, Main	Average	Average
Wildhorse Creek	Excellent	Average
Umatilla R. (Cold Springs Reservoir)	Excellent	Average
Umatilla R. (McKay Res.)	Excellent	Average
McKay Creek	Excellent	Average
Birch Creek	Excellent	Average
Butter Creek	Excellent	Average
Willow Creek	Excellent	Average
Rhea Creek	Excellent	Average
Rock Cr. (John Day tributary)	Average	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Cold Springs	50.0	50.0	47.6	48.8
McKay	73.8	55.6	33.5	47.1

STREAMFLOW FORECASTS^a (1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
0320	Butter Creek near Pine City	11.2	April-July	8.6	130
0225	McKay near Pilot Rock	33	April-Sept.	28	118
0200	Umatilla near Gibbon	94	April-July	74	127
		100	April-Sept.	80	125
0210	Umatilla at Pendleton	178	April-July	150	119
		184	April-Sept.	155	119
0110	Walla Walla, North Fork near Milton	19.6	April-July	15.4	127
		20	April-Sept.	16.0	125
0100	Walla Walla, South Fork near Milton	64	April-July	54	118
		77	April-Sept.	67	115

SOIL MOISTURE

SOIL MOISTURE		PROFILE (Inches)		SOIL MOISTURE (Inches)			
STATION		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Athens-Weston	1700	48	18.7	3/27	11.2*	11.2	11.4
Battle Mtn. Summit	4340	48	13.8	3/25	13.7	12.9	13.8
Emigrant Springs	3925	48	22.3	3/25	21.4	20.4	20.1
Tollgate	5070	48	23.6	3/27	17.7	18.6*	18.8
*Accuracy questioned.							

*Accuracy questioned.

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Arbuckle Mountain	5400	3/28	32	12.0	0.0	11.3
Battle Mountain Summit	4340	3/25	14	4.8	0.0	1.3 ^m
Blue Mountain Camp	4300	3/27	46	20.8	0.8	14.0 ^h
Emigrant Springs	3925	3/25	26	10.0	0.0	3.6
Lucky Strike	5050	3/27	43	15.2	4.0	13.6 ^h
Meacham	4300	3/25	36	13.3	0.0	8.8
Tollgate	5070	3/27	78	32.1	3.3	26.5
Walla Walla Diversion	3400	4/1	0	0.0	0.0	- -
Weston Mountain	2700	3/27	0	0.0	0.0	0.1 ^m

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

10 0 10 20 30
SCALE IN MILES

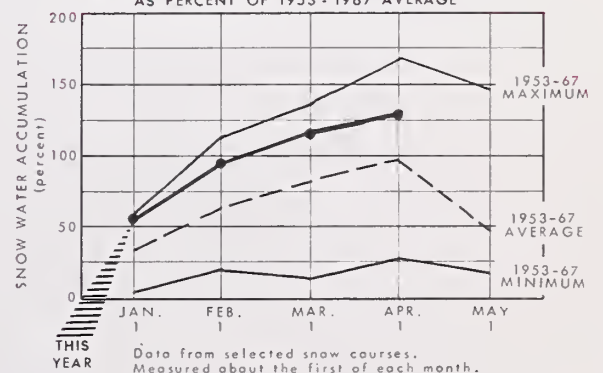


LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ▶ Soil Moisture Station
- ⌈ Precipitation Gage

SNOW WATER ACCUMULATION IN AREA 3

AS PERCENT OF 1953-1967 AVERAGE





WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

as of

APRIL 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Above average water supplies are in prospect for water users in the John Day Basin during this spring and summer.

SNOW COVER

Below normal amounts of snowfall during March reduced the snowpack to 126 percent of average from 134 percent during the previous month.

PRECIPITATION

Precipitation in the John Day Valley during March was 32 percent of normal. Rainfall for the November through March period was 107 percent of normal as reported by the U. S. Weather Bureau.

SOIL MOISTURE

Soils are well wetted from above average fall precipitation and will absorb less than usual amounts of snowmelt water.

STREAMFLOW

Forecasted streamflow for the area for the April-July period are as follows:

<u>Station</u>	<u>Volume in Acre Feet</u>	<u>Percent of 1953-67 Avg.</u>
John Day at Prairie City	52,000	124
John Day, Mid. Fk. near Ritter	135,000	120
Strawberry near Prairie City	7,900	103

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

STREAM or AREA	FLOW PERIOD		RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
	SPRING SEASON	LATE SEASON			THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Beech Creek	Average	Average					
Beech Creek-Fox-Long Cr.	Average	Average					
Bridge-Mountain Creeks	Average	Average					
Camas Creek	Excellent	Average					
Cherry Creek	Excellent	Average					
Indian-Pine Creeks	Average	Average					
John Day River, Main Fork	Average	Average					
John Day River, Mid. Fork	Average	Average					
John Day River, N. Fork	Average	Average					
John Day River, S. Fork	Average	Average					
Monument-Kimberly	Average	Average					
Strawberry Creek	Average	Average					

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
0385	John Day at Prairie City	52	April-July	42	124
		59	April-Sept.	46	128
0440	John Day, Middle Fork at Ritter	135	April-July	112	120
		141	April-Sept.	116	122
0375	Strawberry near Prairie City	7.9	April-July	7.7	103
		8.6	April-Sept.	8.4	102

SOIL MOISTURE

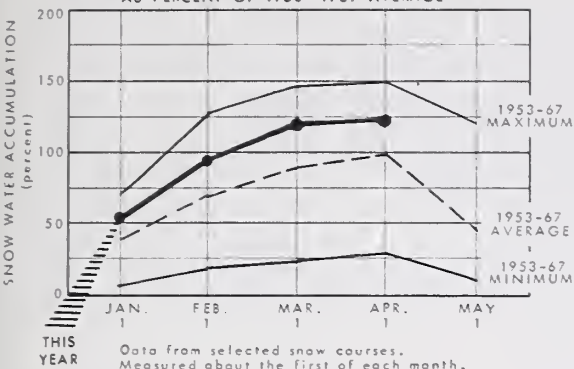
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Battle Mtn. Summit	4340	48	13.8	3/25	13.7	12.9	13.8
Beech Creek	4800	48	21.3	3/26	14.5	15.1	17.4
Blue Mountain Springs	5900	42	16.9	3/28	11.6	12.6	11.8
Blue Mountain Summit	5100	36	16.8	3/28	11.5	11.7	12.3
Derr	5670	24	9.0	3/28	8.9	8.9	8.1
Marks Creek	4540	36	14.1	3/25	12.3	11.8*	13.6
Snow Mountain	6300	48	16.7	3/25	14.8	12.2	15.5
Starr Ridge	5150	36	10.6	3/26	10.6	10.5	10.5
Williams Ranch	4500	42	17.9	3/26	17.7	- -	- -
*Accuracy questioned.							

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

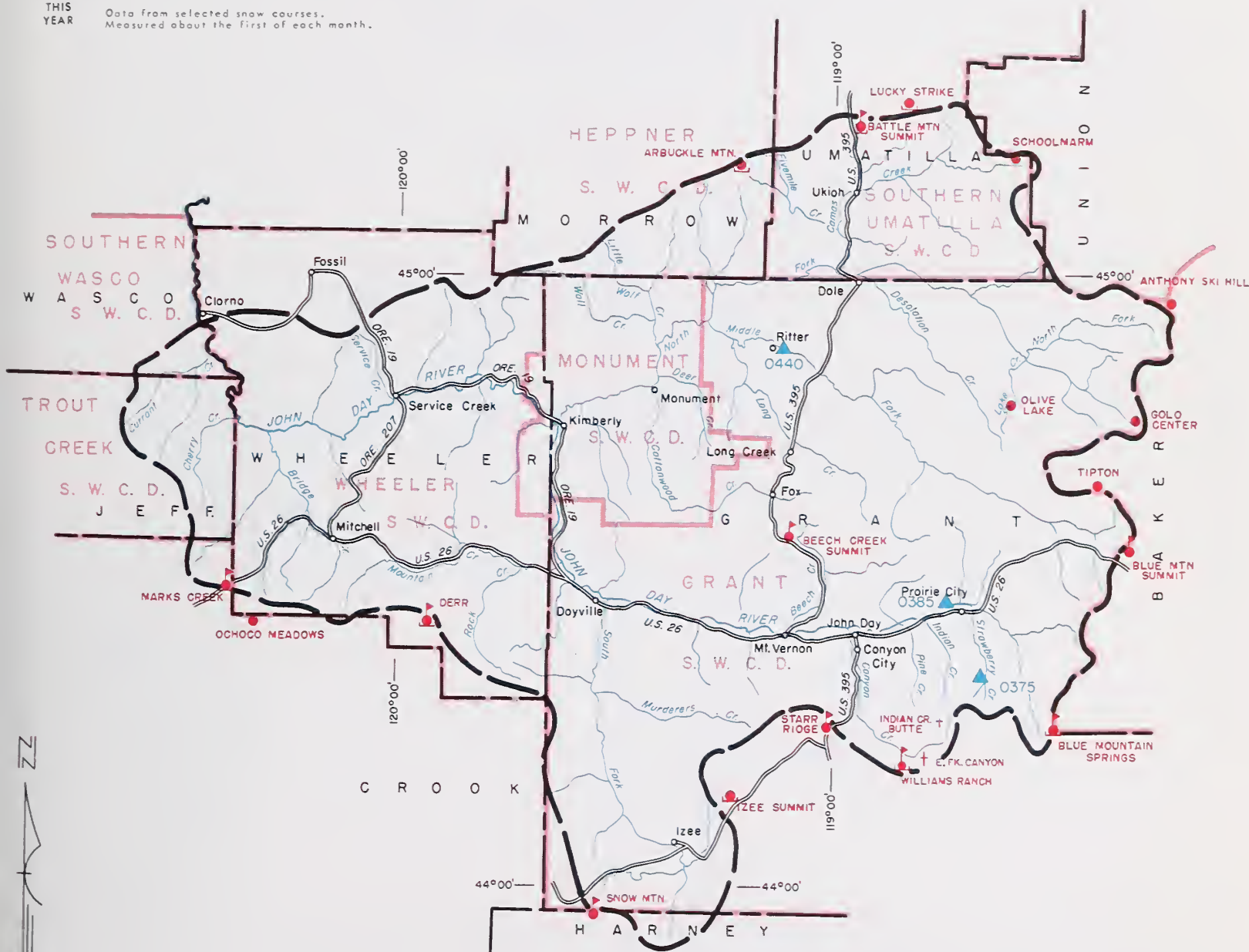
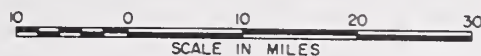
UPPER JOHN DAY WATERSHEDS












AS PERCENT OF 1953 - 1967 AVERAGE



Data from selected snow courses.
Measured about the first of each month.



LEGEND

-  Watershed Boundary
-  Sub-watershed Boundary
-  Soil Conservation District Bdry.
-  County Boundary
-  Forecast Point
-  Snow Course
-  Soil Moisture Station
-  Aerial Snow Depth Gage
-  Precipitation Gage

Upper John Day Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Anthony Lake	7125	3/27	67	26.5	19.5	27.7
Arbuckle Mountain	5400	3/28	32	12.0	0.0	11.3
Battle Mountain Summit	4340	3/25	14	4.8	0.0	1.3 ^m
Beech Creek Summit	4800	3/26	22	7.9	0.0	3.6
Blue Mountain Springs	5900	3/28	44	16.9	8.8	15.5
Blue Mountain Summit	5098	3/28	30	10.5	3.0	7.4
Derr	5670	3/28	35	14.4	0.5	9.5
East Fork Canyon ^e	5700	b			0.0	9.6
Gold Center	5340	3/26	40	14.8	6.5	12.2
Indian Creek Butte ^e	6550	b			11.4	23.6 ^m
Izee Summit	5293	3/26	24	8.4	0.0	7.2
Lucky Strike	5050	3/27	43	15.2	4.0	13.6 ^h
Marks Creek	4540	3/25	18	6.4	0.0	1.7
Ochoco Meadows	5200	3/31	29	11.6	0.0	9.3
Olive Lake	6000	3/28	62	23.9	11.7	20.7
Schoolmarm	4775	3/30	10	3.9	0.1	4.1
Snow Mountain	6300	3/25	43	16.1	3.3	12.9
Starr Ridge	5150	3/26	21	7.2	0.0	4.1
Tipton	5100	3/28	30	11.2	2.6	9.6
Williams Ranch	4500	3/26	T	T	0.0	- -

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK UPPER DESCHUTES, CROOKED WATERSHEDS OREGON

as of

APRIL 1, 1969



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Average water supplies are in prospect for water users in the Crooked and Deschutes watersheds during the spring and summer of 1969.

SNOW COVER

Most of the area received less than usual amounts of snow during March, reducing the snowpack to 116 percent of normal on April 1 down from 131 percent the previous month.

PRECIPITATION

According to the U. S. Weather Bureau, November through March precipitation was 117 percent of normal. Precipitation for the month of March was 78 percent of normal.

SOIL MOISTURE

Soils in the mountain watersheds are currently at 91 percent of capacity and will absorb nominal amounts of the snowmelt.

RESERVOIR STORAGE

Ochoco and Prineville Reservoirs currently hold 139,600 acre feet compared to an average April 1 storage of 149,000 acre feet. This is 93 percent of average. The combined stored water in the upper Deschutes Reservoirs of Crane Prairie, Crescent Lake and Wickiup is 219,800 acre feet compared to an April 1 average of 291,900 acre feet. This is 75 percent of the 1953-67 average.

STREAMFLOW

The April-September streamflow forecasts are as follows:

<u>Station</u>	<u>Volume (Acre Ft.)</u>	<u>Percent of 1953-67 Average</u>
Crane Prairie Res. Total Inflow	148,000	117
Crescent at Crescent Lake	25,000	89
Deschutes at Benham Falls	530,000	89
Little Deschutes near La Pine	100,000	105
Squaw Creek near Sisters	52,000	102
Tumalo Creek near Bend	54,000	110
Crooked at Post	144,000	142
Ochoco Reservoir net Inflow	36,000	156

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Arnold Irrigation District	Average	Average
Bear Creek	Average	Average
Beaver Creek	Average	Average
Camp Creek	Average	Average
Central Ore. Irrig. Dist.	Average	Average
Crooked River	Average	Average
Deschutes River	Average	Average
Hay-Trout Creeks	Average	Average
Lone Pine Irrig. Dist.	Average	Average
Mill Creek	Average	Average
North Unit Irrig. Dist.	Average	Average
Ochoco Creek	Average	Average
Sisters Irrigation Dist.	Average	Average
Snow Creek Irrig. Dist.	Average	Average
Squaw Creek Irrig. Dist.	Average	Average
Swalley Ditch	Excellent	Excellent
Tumalo Project	Average	Average
Walker Basin Irrig. Dist.	Average	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Crane Prairie	55.3	29.9	34.0	47.6
Crescent Lake	86.9	31.4	47.4	49.9
Ochoco	47.5	18.8	18.9	33.2
Prineville	153.0	120.8	123.1	115.8
Wickiup	200.0	158.5	170.1	194.4

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

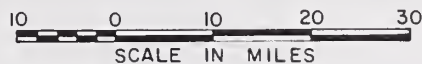
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
0535	Crane Prairie Reservoir total Inflow	99	April-July	83	119
		148	April-Sept.	126	117
0600	Crescent at Crescent Lake ^d	20	April-July	22	91
		25	April-Sept.	28	89
0795	Crooked near Post	139	April-July	99	140
		144	April-Sept.	101	142
0645	Deschutes at Benham Falls ^d	345	April-July	393	88
		530	April-Sept.	596	89
0500	Deschutes below Snow Creek	68	April-Sept.	66	103
0630	Deschutes, Little near Lapine ^d	83	April-July	83	100
		100	April-Sept.	95	105
0848	Ochoco Reservoir net Inflow	36	April-Sept.	23	156
0555	Odell near Crescent	35	April-Sept.	30	117
0750	Squaw near Sisters	52	April-Sept.	51	102
0730	Tumalo near Bend	54	April-Sept.	49	110

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Derr	5670	24	9.0	3/28	8.9	8.9	8.1
Marks Creek	4540	36	14.1	3/25	12.3	11.8	13.6
Snow Mountain	6300	48	16.7	3/25	14.8	12.2	15.5

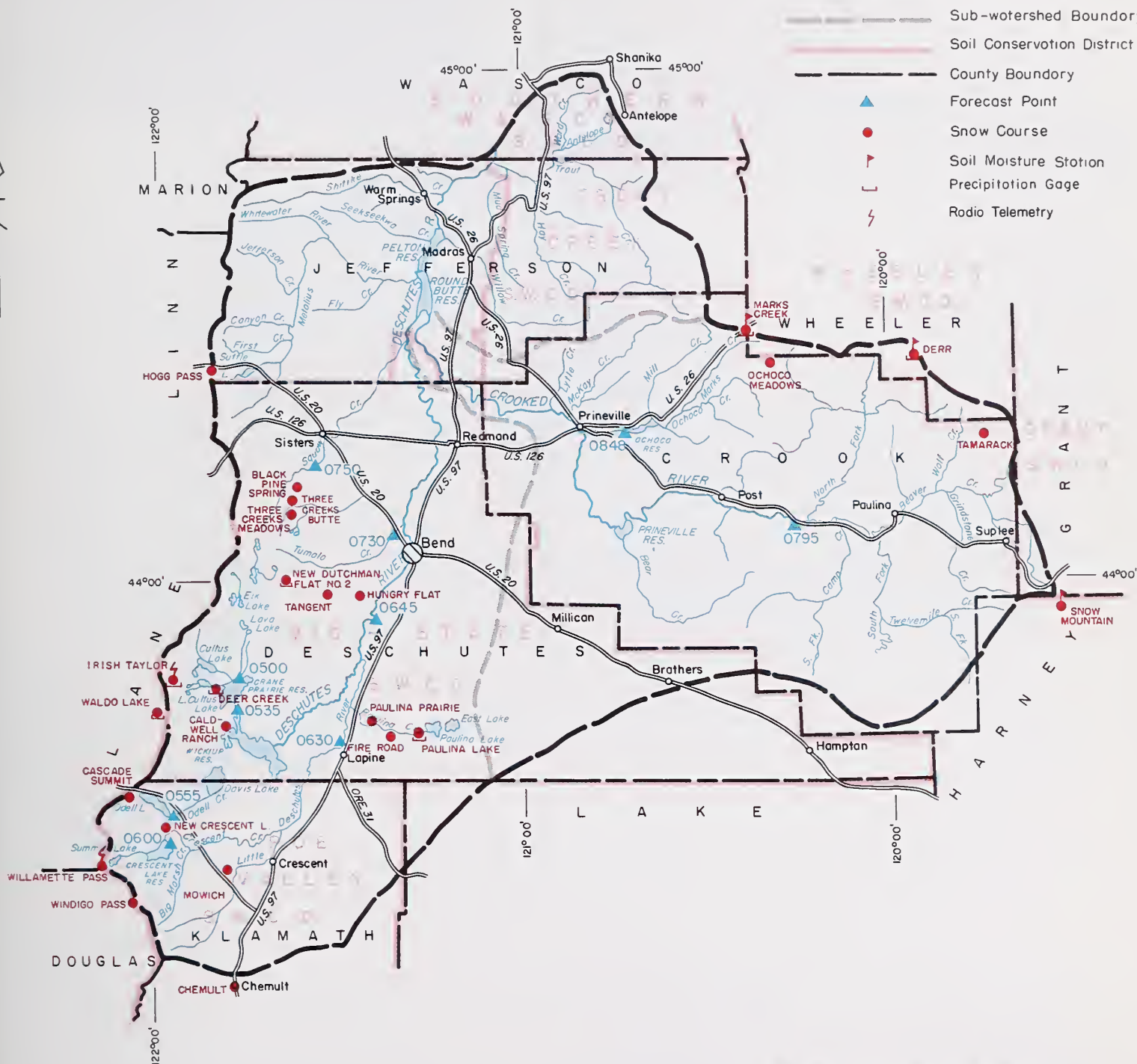
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS

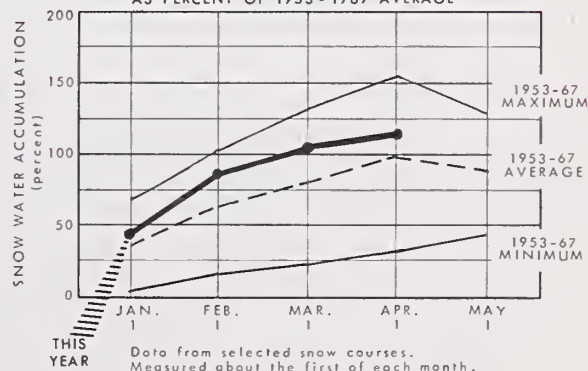


LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- - - Soil Conservation District Bdry
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- ▼ Soil Moisture Station
- ⌈ Precipitation Gage
- ⚡ Radio Telemetry



SNOW WATER ACCUMULATION IN AREA 5
AS PERCENT OF 1953-1967 AVERAGE



Upper Deschutes, Crooked Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1953-1967 AVERAGE
NAME	ELEVATION					
Black Pine Spring	4600	3/28	22	8.3	0.0	2.8
Caldwell Ranch	4400	3/27	30	13.1	0.6	9.1
Cascade Summit	4880	4/1	83	35.2	14.9	30.7
Chemult	4760	3/27	28	10.8	0.9	8.5
Deer Creek	4554	3/27	54	22.9	10.1	- -
Derr	5670	3/28	35	14.4	0.5	9.5
Fire Road	5050	DISCONTINUED				
Hogg Pass	4755	4/1	112	49.7	21.1	43.4
Hungry Flat	4400	3/27	19	7.9	0.0	3.1
Irish Taylor	5500	3/27	103	45.9	19.3	38.4
Marks Creek	4540	3/25	18	6.4	0.0	1.7
Mowich	4700	3/24	27	9.5	0.0	2.6 ^h
New Crescent Lake	4800	3/26	49	20.1	4.8	14.5
New Dutchman Flat #2	6400	3/28	112	50.4	25.1	51.9
Ochoco Meadows	5200	3/31	29	11.6	0.0	9.3
Paulina Lake	6330	DISCONTINUED				
Paulina Prairie	4285	DISCONTINUED				
Snow Mountain	6300	3/25	43	16.1	3.3	12.9
Tamarack	4800	3/27	17	5.8	0.0	4.1 ^h
Tangent	5400	3/28	54	24.6	12.4	22.0
Three Creeks Butte	5200	3/28	41	17.7	0.7	9.6 ^h
Three Creeks Meadows	5650	3/28	59	24.4	7.5	19.0
Waldo Lake	5500	3/25	95	38.4	17.3	32.4
Willamette Pass	5600	3/24	117	48.2	24.4	41.6
Windigo Pass	5800	3/26	111	48.6	22.7	43.3

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

as of

APRIL 1, 1969



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, orchardists and other water users in Hood River and Wasco Counties will have above average water supplies during the spring and summer of 1969. The snowpack remains much above normal.

SNOW COVER

The April 1 mountain snowpack was 146 percent of normal compared to 175% of the 15-year average for last month. Snowfall for March was below normal.

PRECIPITATION

The U. S. Weather Bureau reports the precipitation for March as 33 percent of normal. The precipitation for the November-March period was 86 percent of normal. This is the second month in a row that precipitation has been less than half of normal.

SOIL MOISTURE

Soils below the snowpack are well wetted by above normal fall precipitation and will favor spring runoff.

RESERVOIR STORAGE

Clear Lake Reservoir contains 3,200 acre feet of water compared to an average of 4,000 acre feet.

STREAMFLOW

Forecasts of expected streamflow for the period April through September are as follows:

<u>Station</u>	<u>Volume in Acre Feet</u>	<u>Percent of 1953-67 Average</u>
Hood River near Hood River	444,000	132
Hood River, West Fork near Dee	209,000	130
White River below Tygh Valley	230,000	160

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Aldridge Ditch (Tony Creek)	Excellent	Average
Badger Creek	Excellent	Average
Dee Irrigation District	Excellent	Average
East Fork Irrigation Dist.	Excellent	Average
Farmers Irrigation Dist.	Excellent	Average
Hood River Irrig. Dist.	Excellent	Average
Juniper Flat	Excellent	Average
Middle Fork Irrig. Dist.	Excellent	Average
Mile Creeks	Excellent	Average
• Mill Creek	Excellent	Average
Mount Hood Irrig. Dist.	Excellent	Average
Rock-Gate-Threemile Crs.	Excellent	Average
Tygh Creek	Excellent	Average
White River	Excellent	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Clear Lake	11.9	3.2	3.4	4.0 m

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Cooper Spur	3490	72	26.4	4/1	14.3	14.0	- -

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
1210	Hood near Hood River ^d	391	April-July	282	139
		444	April-Sept.	336	132
1185	Hood, West Fork near Dee	185	April-July	140	132
		209	April-Sept.	161	130
1015	White below Tygh Valley	214	April-July	128	167
		230	April-Sept.	144	160

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Brooks Meadow	4300	3/31	47	22.7	0.0	11.4
Clear Lake	3500	3/31	51	21.3	0.0	10.6
Clear Lake (Experimental)	3500	3/31	65	28.0	0.0	19.2 h
Cooper Spur	3490	4/1	43	20.5	0.0	- -
Greenpoint Reservoir	3400	3/27	74	31.0	2.0	17.5
Knebal Springs	3850	3/28	0	0.0	0.0	7.4 h
Parkdale	1770	4/1	0	0.0	- -	- -
Phlox Point	5400	3/28	158	73.2	34.0	62.5
Red Hill	4400	3/28	144	66.5	14.2	43.7
Still Creek	3670	3/28	94	41.6	4.3	25.0
Switchback	3255	4/1	55	26.8	0.0	- -
Tilly Jane	6000	3/31	127	53.4	13.4	45.3
Ulrich Ranch Junction	3350	3/31	26	11.4	0.0	3.2 h
Umbrella Falls	5400	3/31	172	76.4	35.8	- -
Upper Valley	2530	4/1	27	12.4	- -	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

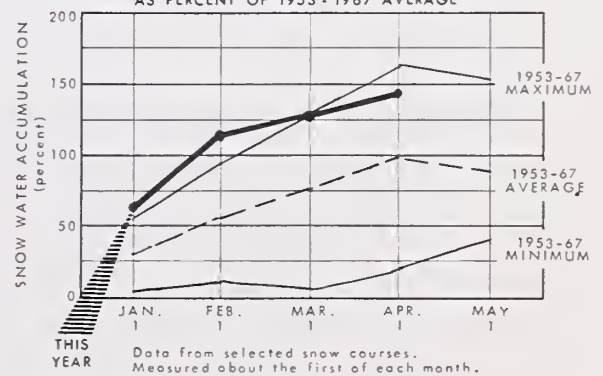
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- ▼ Soil Moisture Station
- ⊥ Precipitation Gage
- ☐ Temperature Gage
- ⚡ Radio Telemetry

SNOW WATER ACCUMULATION IN AREA 6 AS PERCENT OF 1953-1967 AVERAGE



WATER SUPPLY OUTLOOK LOWER COLUMBIA WATERSHEDS OREGON

as of

APRIL 1, 1969



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Good to excellent water supplies are anticipated for all parts of the Columbia Basin and adjacent Pacific Northwest watersheds. Flow of the upper Columbia and Kootenai Rivers is expected to be slightly below average. Most U. S. streams should produce significantly above average flows, ranging from about 110 to 150 percent. Streams with forecasts ranging from 150 to 250 percent include the Owyhee and Malheur in eastern Oregon.

SNOW COVER

Very light snows fell throughout most of the Columbia Basin during March. However, all sections of the Basin and adjacent watersheds have an average or better snowpack, with the exception of the upper Columbia in Canada where it is generally 95 percent of average. Snow on the Owyhee and Bruneau Rivers is about twice normal, and about 145-150 percent in an area near Mt. Hood.

SOIL MOISTURE

Soils are wet throughout the basin. Considering the present snowpack, unless a dry summer is experienced, soil moisture should continue in a favorable condition into the fall months.

RESERVOIR STORAGE

Reservoir storage is generally below average. Southern Idaho and Oregon Reservoirs, adversely affected by last year's drought, should be restored to a good condition by this year's runoff. In areas of high runoff potential some reservoirs have been drawn down to provide needed storage space.

STREAMFLOW

The flow of the Columbia River at The Dalles, Oregon, as reported by the U. S. Geological Survey, fell a little below average during February, but flow returned to an above average condition when valley and foothill snowmelt commenced in late March. The record by months for the 1969 water year follows:

<u>Month</u>	<u>Percent of Average Discharge (1953-67)</u>			
October	119	(Adjusted for Storage)		
November	128	"	"	"
December	104	"2	"	"
January	134	"	"	"
February	95	"	"	"
March	113	"	"	"

Report prepared by

TOM GEORGE

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
1057	Columbia at The Dalles	81,500 116,000	April-June April-Sept.	72,406 105,176	113 110

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^d (1,000 A.F.)			PEAK (1,000 c.f.s.)	DATE
	APR. - SEPT.	APR. - JUNE	MAY - JUNE		
1946	108,100	75,400	59,600	581	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,400	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105,700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,903	65,112	622	June 10
1953-67 Avg.	105,181	72,408	59,689	574	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

COLUMBIA RIVER BASIN

● Snow Course or Aerial Marker



"The Conservation of Water begins with the Snow Survey"



WATER SUPPLY OUTLOOK WILLAMETTE WATERSHEDS OREGON

as of

APRIL 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in the Willamette Valley will have above average water supplies during the spring and summer of 1969. The snowpack was reduced by below normal precipitation during March but remains above normal.

SNOW COVER

Snowfall during March was less than normal resulting in a decrease in the mountain snowpack from 148 percent on March 1 to 123 percent of normal on April 1.

SOIL MOISTURE

Soils remain well wetted from above normal fall and early winter precipitation.

PRECIPITATION

The U. S. Weather Bureau reports that the precipitation in the Willamette watershed during March was 52 percent of normal. It was 102 percent of normal for the November-March period.

RESERVOIR STORAGE

Most reservoirs in the Willamette Basin are currently near normal with some remaining at low levels to intercept anticipated runoff.

STREAMFLOW

Forecasts of streamflow for the Willamette Basin are as follows:

<u>Stream Station</u>	<u>April-Sept. Volume in Acre Feet</u>	<u>Percent of 1953-67 Avg.</u>
Row River near Dorena	129,000	117
Middle Fork Willamette	898,000	108
McKenzie R. at McKenzie Bridge	650,000	106
South Santiam - Waterloo	698,000	110
North Santiam - Mehama	1,124,000	125
Willamette at Salem	5,199,000	100
Clackamas R. at Estacada	980,000	122

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Calapooya	Excellent	Average
Clackamas	Excellent	Average
McKenzie	Average	Average
Molalla	Excellent	Average
Santiam, North	Excellent	Average
Santiam, South	Excellent	Average
Willamette, Coast Fork	Average	Average
Willamette, Middle Fork	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Cottage Grove	30.0*	15.1	16.4	17.2
Cougar	155.2*	52.5	91.2	- -
Detroit	299.9*	60.3	212.8	170.1
Dorena	70.5*	30.9	40.7	38.6
Fall Creek	115.0*	72.7	75.0	- -
Fern Ridge	94.2*	68.9	81.6	68.8
Foster	30.0*	14.0	0.0	- -
Green Peter	270.0*	138.0	166.9	- -
Hills Creek	200.0*	62.1	131.4	120.3
Lookout Point	337.2*	96.3	188.1	195.6
Timothy Lake	61.7	42.0	61.4	49.4

*Multiple purpose reservoir--space reserved primarily for flood runoff.

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
2080	Clackamas at Big Bottom	168	April-July	134	125
		210	April-Sept.	166	127
2100	Clackamas at Estacada	859	April-July	689	125
		980	April-Sept.	800	122
2095	Clackamas above Three Lynx	637	April-July	517	123
		737	April-Sept.	610	121
1590	McKenzie at McKenzie Bridge	500	April-July	465	108
		650	April-Sept.	614	106
1625	McKenzie near Vida	1148	April-July	1087	107
		1392	April-Sept.	1321	105
2090	Oak Grove Fork above Power Intake	168	April-July	125	134
		220	April-Sept.	163	135
1545	Row near Dorena	122	April-July	106	115
		129	April-Sept.	110	117
1830	Santiam, North at Mehama ^d	1015	April-July	800	126
		1124	April-Sept.	901	125
1875	Santiam, South at Waterloo	680	April-July	596	114
		698	April-Sept.	633	110
1480	Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge ^d	797	April-July	725	110
		898	April-Sept.	828	108
1910	Willamette at Salem ^d	4696	April-July	4696	100
		5199	April-Sept.	5199	100

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS

LEGEND

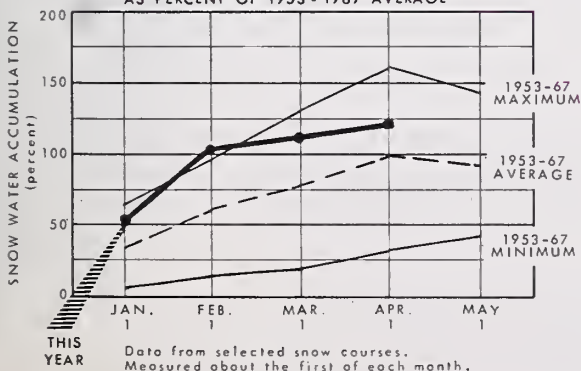
- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ⚡ Radio Telemetry
- J Precipitation Gage
- 9 Temperature Gage



10 0 10 20 30
SCALE IN MILES



SNOW WATER ACCUMULATION IN AREA 8
AS PERCENT OF 1953-1967 AVERAGE



Willamette Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Cascade Summit	4880	4/1	83	35.2	14.9	30.7
Champion	4500	4/1	92	41.1	11.9	30.2
Clackamas Lake	3400	3/28	59	26.1	0.0	12.3
Clear Lake	3500	3/31	51	21.3	0.0	10.6
Clear Lake (Experimental)	3500	3/31	65	28.0	0.0	19.2 ^h
Dead Horse Grade	3800	3/29	76	33.3	0.5	19.8
Detroit City	1610	4/1	0	0.0	0.0	0.0
Detroit Dam	1580	4/1	0	0.0	0.0	0.0
Golden Curry Creek	3136	4/1	25	10.6	0.0	4.1 ^h
Hogg Pass	4755	4/1	112	49.7	21.1	43.4
Layng Creek	1200	4/1	0	0.0	0.0	0.0
Lost Creek Ranch	1956	3/29	26	11.6	0.0	1.4
Lund Park	1740	4/1	0	0.0	0.0	0.0
Marion Forks	2730	4/1	55	24.8	T	13.0 ^h
Marys Peak	3620	3/28	89	41.6	0.8	14.2 ^m
McCredie Springs	2120	4/1	0	0.0	0.0	0.0
McKenzie	4800	3/29	122	52.6	23.0	45.3
McKenzie Bridge	1372	3/29	0	0.0	0.0	0.0
Meridian Dam	750	4/1	0	0.0	0.0	0.0
Mill City	826	4/1	0	0.0	0.0	0.0
Oakridge	1310	4/1	0	0.0	0.0	0.0
Peavine Ridge	3500	4/1	-	32.3 ^g	- -	19.5
Phlox Point	5400	3/28	158	73.2	24.0	62.5
Railroad Overpass	2750	4/1	T	T	0.0	1.3
Salt Creek Falls	4000	4/1	60	24.3	0.0	17.4
Santiam Junction	3990	4/1	65	31.3	1.4	23.1
Still Creek	3670	3/28	94	41.6	4.3	25.0
Timothy Lake	3295	3/29	65	28.5	- -	13.2 ^m
Vida	800	3/29	0	0.0	0.0	0.0
Waldo Lake	5500	3/25	95	38.4	17.3	32.4
Weaver Creek	2440	4/1	7	2.6	0.0	0.6
White Branch Slide	2800	3/29	52	23.0	0.0	4.9
Whitewater Bridge	2175	4/1	13	6.0	0.0	1.8
Willamette Pass	5600	3/24	117	48.2	24.4	41.6

"The Conservation of Water begins with the Snow Survey"



WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON

as of

APRIL 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in the Rogue-Umpqua watersheds will have average to above average water supplies for the spring and summer of 1969.

SNOW COVER

Below normal precipitation during March reduced the April first mountain snowpack to 144 percent of normal from the 172 percent of normal recorded on March first.

PRECIPITATION

The U. S. Weather Bureau reports the precipitation for the November-March period as 91 percent of normal. March precipitation was 33 percent of normal.

RESERVOIR STORAGE

The water stored on April first in the Emigrant Lake, Howard Prairie and Hyatt Prairie Reservoirs totaled 69,600 a.f. compared to an average of 79,600. Fourmile Lake held 5,700 a.f. compared to an average of 10,600 acre feet. Fish Lake contains 3,300 a.f. compared to an average of 6,000 acre feet. Adequate supplies of irrigation water should be available from these reservoirs.

STREAMFLOW

Streamflows for the April-September period in the Rogue and Umpqua Basins are forecast as follows:

<u>Stream Station</u>	<u>Volume</u>	<u>% 1953-67 Average</u>
North Umpqua nr. Toketee Falls	180,000 a.f.	102
Rogue at Raygold	1,006,000 a.f.	107
Hyatt Reservoir net Inflow	9,600 a.f.	184
Fourmile Lake net Inflow	8,800 a.f.	214
Little Butte, N. Fk. at Fish Lk.	20,000 a.f.	139
Little Butte, S. Fk.-Lake Cr. (Apr-July)	52,000 a.f.	158
Applegate near Copper	203,000 a.f.	145
Illinois River near Kerby	300,000 a.f.	142

Grants Pass Irrigation District should not have to go on canal alternation this year if average temperatures and precipitation are received from now until the end of the forecast period.

Report prepared by
TOM GEORGE
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WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Althouse Creek	Excellent	Average
Applegate River, Big	Excellent	Average
Applegate River, Little	Excellent	Average
Ashland Creek	Excellent	Average
Butte Creek, Big	Excellent	Average
Butte Creek, Little	Excellent	Average
Cow Creek	Excellent	Average
Deer Creek	Excellent	Average
Elk Creek	Excellent	Average
Emigrant Creek (abv. Res.)	Excellent	Average
Evans Creek	Average	Average
Gold Hill Irrigation Dist.	Average	Average
Grants Pass Irrig. Dist.	Average	Average
Grave Creek	Excellent	Average
Illinois River, East Fork	Excellent	Average
Illinois River, West Fork	Excellent	Average
Jump-off-Joe Creek	Excellent	Average
Nail Creek	Excellent	Average
Red Blanket Creek	Excellent	Average
Rogue River	Average	Average
Sucker Creek	Excellent	Average
Table Rock Irrig. Dist.	Average	Average
Thompson Creek	Excellent	Average
Wagner Creek	Excellent	Average
Williams Creek	Excellent	Average

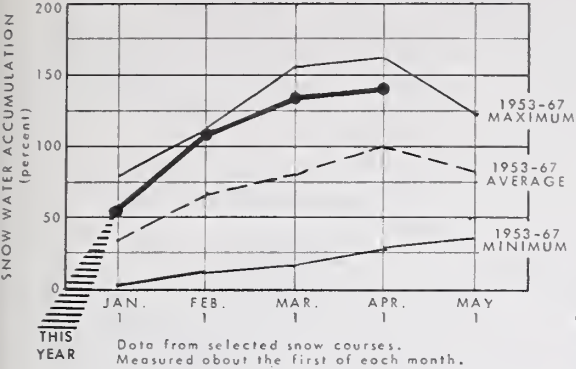
RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Emigrant Lake	39.0	38.1	31.0	35.0*
Fish Lake	7.8	3.3	4.0	6.0
Fourmile Lake	16.1	5.7	3.5	10.6
Howard Prairie	60.0	22.0	43.0	32.7 ^m
Hyatt Prairie	16.1	9.5	10.8	11.9
*Average for years of record after reconstruction (in base period).				

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3620	Applegate near Copper	203	April-Sept.	140	145
3145	Clearwater above Trap Creek ^d	73	April-Sept.	73	100
5045	Fourmile Lake net Inflow ^d	8.8	April-Sept.	4.1	214
5140	Hyatt Reservoir net Inflow ^d	9.6	April-Sept.	5.2	184
3771	Illinois River near Kerby	295	April-July	205	144
		300	April-Sept.	211	142
3425	Little Butte, N. Fk. at Fish Lk. nr. Lake Cr. ^d	20	April-Sept.	14.4	139
3415	Little Butte, So. Fk. near Lake Creek	52	April-July	33	158
	Note: Minimum flow will drop to 100 c.f.s. by June 10.				
3280	Rogue above Prospect	324	April-July	269	120
		389	April-Sept.	326	119
3320	Rogue, South Fork near Prospect ^d	68	April-July	62	109
		83	April-Sept.	74	112
3350	Rogue River below South Fork	595	April-July	570	104
		730	April-Sept.	708	103
3590	Rogue at Raygold near Central Point	843	April-July	781	108
		1006	April-Sept.	941	107
3615	Rogue at Grants Pass	940	April-Sept.	940	100
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls ^d	180	April-Sept.	176	102

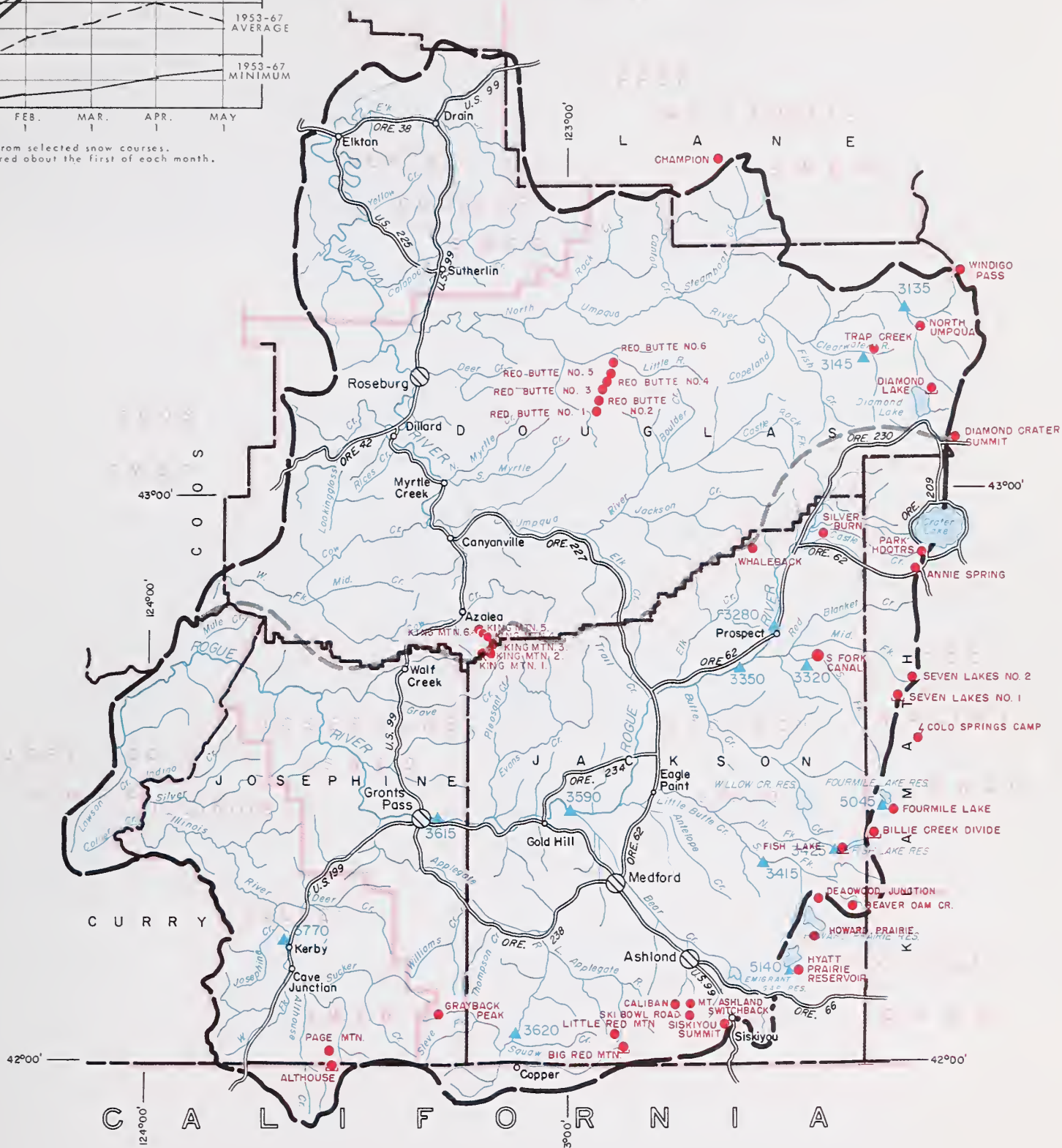
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

SNOW WATER ACCUMULATION IN AREA 9
AS PERCENT OF 1953 - 1967 AVERAGE



ROGUE, UMPQUA WATERSHEDS

10 0 10 20 30
SCALE IN MILES



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ⌋ Precipitation Gage
- ⚡ Radio Telemetry

Rogue, Umpqua Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Althouse	4530	3/28	66	28.9	0.0	7.2
Annie Spring	6018	3/28	127	52.5	30.0	45.6
Beaver Dam Creek	5100	3/21	56	25.9	2.3	10.9 ^m
Big Red Mountain	6500	3/25	109	48.1	25.0	30.9
Billie Creek Divide	5300	3/27	80	36.9	8.1	27.1
Caliban	6500	3/25	117	46.2	31.7	- -
Champion	4500	4/1	92	41.1	11.9	30.2
Cold Springs Camp	6100	3/21	117	46.4	18.6	33.6 ^h
Deadwood Junction	4600	3/31	42	18.9	0.0	8.7 ^h
Diamond-Crater Summit	5800	3/24	102	43.0	20.5	37.7 ^h
Diamond Lake	5315	3/24	70	27.4	12.6	22.8
Fish Lake	4865	3/27	64	26.8	- -	12.8 ^h
Fourmile Lake	6000	3/27	86	34.9	14.6	25.2
Grayback Peak	6000	3/27	104	47.9	15.9	29.2
Howard Prairie	4500	3/31	39	16.4	1.4	7.6 ^h
Hyatt Prairie Reservoir	4900	3/31	42	19.0	0.0	7.2 ^h
King Mountain #1	4500	3/28	49	21.8	2.1	- -
King Mountain #2	4000	3/28	42	17.7	0.5	- -
King Mountain #3	3648	3/28	5	1.5	0.0	- -
King Mountain #4	3049	3/28	0	0.0	0.0	- -
King Mountain #5	2380	3/28	0	0.0	0.0	- -
King Mountain #6	1820	3/28	0	0.0	0.0	- -
Little Red Mountain	6500	3/25	93	41.9	16.9	25.3
Mt. Ashland Switchback	6400	3/25	116	44.3	33.8	- -
Mule Creek*	3680	3/28	48	22.5	- -	- -
North Umpqua	4215	3/28	41	18.6	1.3	13.6 ^h
Page Mountain	4045	3/28	40	15.8	0.0	4.3
Park Headquarters	6450	3/28	151	65.2	40.2	58.6
Red Butte #1	4560	3/24	79	32.8	4.8	16.2 ^h
Red Butte #2	4000	3/24	60	25.3	2.0	9.3 ^h
Red Butte #3	3500	3/24	35	14.6	0.0	7.5 ^h
Red Butte #4	3000	3/24	16	8.8	0.0	3.4 ^h
Red Butte #5	2500	3/24	T	T	0.0	0.0 ^m
Red Butte #6	2000	3/24	0	0.0	0.0	0.0 ^m
Seven Lakes #1	6800	3/26	156	68.8	30.9	58.9
Seven Lakes #2	6200	3/25	129	53.0	24.8	48.2
Silver Burn	3720	3/30	48	21.7	0.0	12.0
Siskiyou Summit	4630	3/28	40	17.2	0.0	2.5
Ski Bowl Road	6000	3/25	94	37.7	27.0	- -
South Fork Canal	3500	3/30	T	T	0.0	0.4 ^h
Trap Creek	3800	3/28	41	18.1	0.0	10.5
Whaleback	5140	4/1	97	41.3	17.3	32.4
Windigo Pass	5800	3/26	111	48.6	22.7	43.3

*New snow course.

"The Conservation of Water begins with the Snow Survey"



WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

as of

APRIL 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Farmers, ranchers and other water users in the Klamath Basin will have excellent water supplies available during the spring and summer of 1969.

SNOW COVER

The mountain snowpack was 146 percent of average on April first, compared to an average of 165 percent for March first. A much above average snowpack at lower elevations remains.

PRECIPITATION

The November 1 to April 1 precipitation was 106 percent of normal. March precipitation was 33 percent of average, as reported by the U. S. Weather Bureau.

SOIL MOISTURE

Soil moisture on the mountain watersheds was 88 percent of the total water-holding capacity.

RESERVOIR STORAGE

Water stored in reservoirs in the area is at near average levels for this time of year. Upper Klamath Lake holds 501,300 acre feet compared to an average of 467,400 acre feet. Gerber Reservoir contains 47,800 a.f. compared to an average of 56,600 acre feet. Clear Lake Reservoir holds 234,900 a.f. with an average of 250,400 acre feet.

STREAMFLOW

The streamflow forecasts for the Klamath Basin are as follows:

<u>Station</u>	<u>Period</u>	<u>Volume</u>	<u>Percent of 1953-67 Avg.</u>
Clear Lake Reservoir Inflow	Apr-June	113,000 a.f.	305
Gerber Reservoir Inflow	Apr-June	57,000 a.f.	303
Sprague River nr. Chiloquin	Apr-July	340,000 a.f.	125
Inflow to Upper Klamath Lk.	Apr-July	648,000 a.f.	126
Williamson R. blw. Sprague	Apr-Sept	610,000 a.f.	124

Report prepared by
TOM GEORGE

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WATER SUPPLY OUTLOOK expressed as "Poor", "Fair", "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Ft. Klamath Valley	Excellent	Average
Lost River (Clear Lake)	Excellent	Average
Lost River (Gerber)	Excellent	Average
Lost River (Willow Res.)	Excellent	Average
Sprague River	Excellent	Average
Upper Klamath Lake	Excellent	Average
Williamson River	Excellent	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Clear Lake	440.2	234.9	219.2	250.4
Gerber	94.0	47.8	60.6	56.6
Upper Klamath Lake	584.0	501.3	479.4	467.4

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

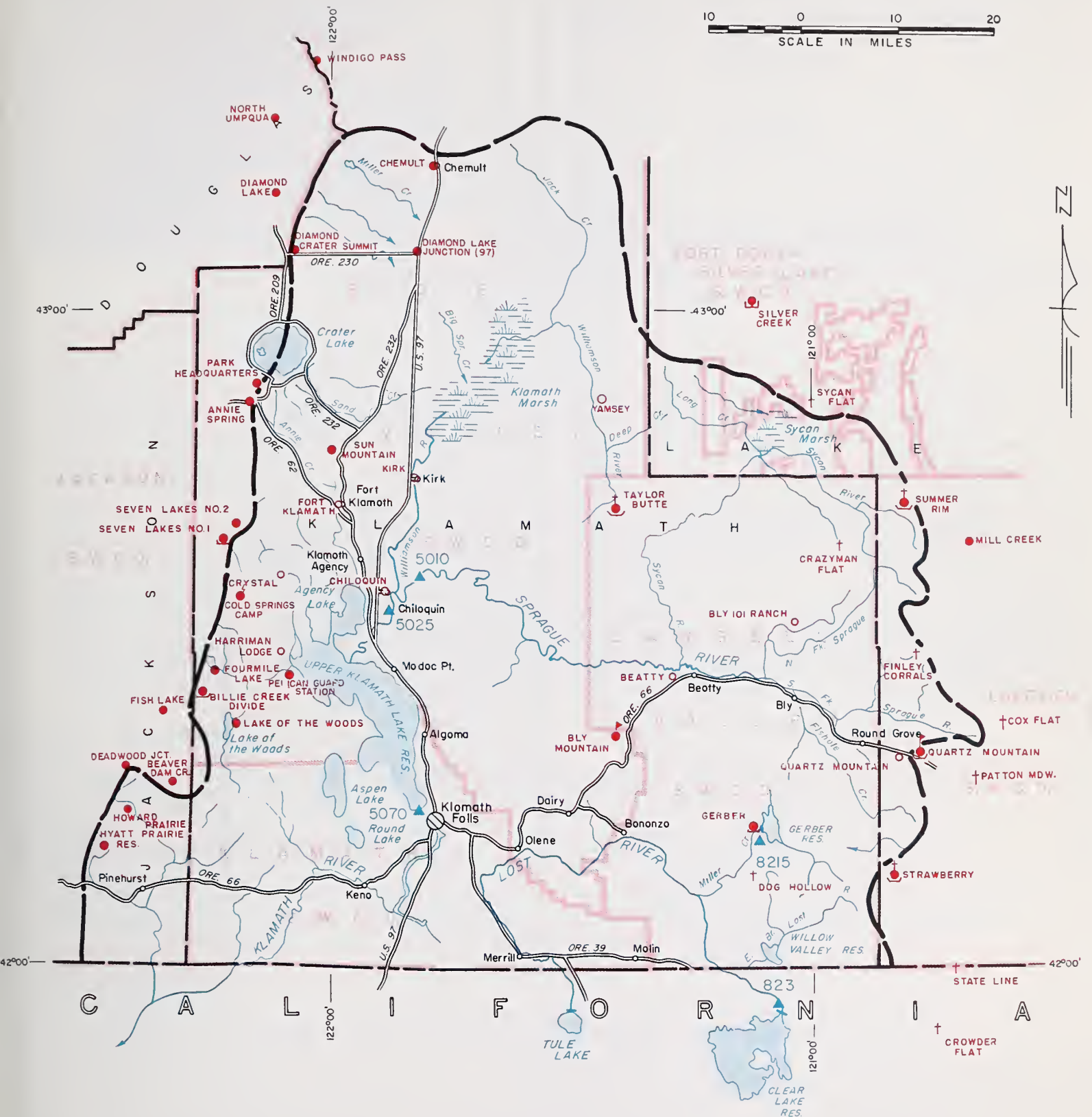
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
823	Clear Lake Reservoir Inflow ^k	113	April-June	37	305
		119	April-Sept.	40	298
8215	Gerber Reservoir Inflow ^k	57	April-June	18.8	303
		58	April-Sept.	19.5	297
5010	Sprague near Chiloquin	340	April-July	263	125
		386	April-Sept.	296	130
5070	Upper Klamath Lake net Inflow ^k	648	April-July	506	128
		775	April-Sept.	619	125
5025	Williamson below Sprague River	610	April-Sept.	475	128

SOIL MOISTURE

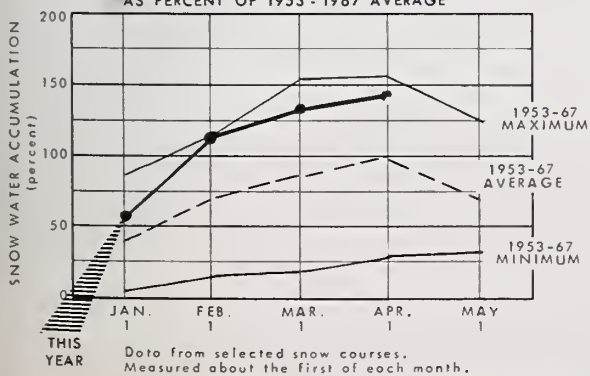
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Bly Mountain	5090	42	14.0	3/27	12.3	11.7	11.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 10
AS PERCENT OF 1953-1967 AVERAGE



LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- Soil Conservation District Bdry.
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- PP&L Snow Station
- ▼ Soil Moisture Station
- ⌋ Precipitation Gage
- ⚡ Radio Telemetry

Klamath Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Annie Spring	6018	3/28	127	52.5	30.0	45.6
Beatty (PP&L)	4300	3/31	0	0.0	- -	T ^m
Billie Creek Divide	5300	3/27	80	36.9	8.1	27.1
Bly Mountain	5090	3/27	32	13.4	0.0	4.4 ^m
Bly 101 Ranch (PP&L)	4800	3/31	0	0.0	- -	0.2
Chemult	4760	3/27	28	10.8	- -	9.1
Chiloquin (PP&L)	4187	3/31	T	T	- -	T
Cold Springs Camp	6100	3/21	117	46.4	18.6	33.6 ^h
Crazyman Flat ^e	6100	3/25	38	14.4	3.4	10.5 ^m
Crowder Flat ^e (Calif.)	5200	3/25	22	8.4	0.0	1.4 ^m
Crystal (PP&L)	4200	3/29	38	16.5	0.0	5.4
Diamond-Crater Summit	5800	3/24	102	43.0	20.5	37.7 ^h
Diamond Lake Junction (97)	4600	3/24	30	10.2	0.0	4.8 ^h
Dog Hollow ^e	4900	3/25	8	3.8	0.0	0.4 ^m
Finley Corrals ^e	6000	3/25	60	22.8	5.3	15.9 ^m
Fort Klamath (PP&L)	4150	3/29	13	5.2	0.0	0.7
Fourmile Lake	6000	3/27	86	34.9	14.6	25.2 ^h
Gerber	4850	3/31	6	2.6	0.0	0.7 ^h
Harriman (PP&L)	4200	3/31	22	8.4 ^g	0.0	0.9 ^m
Hyatt Prairie Reservoir	4900	3/31	42	19.0	0.0	7.2 ^h
Kirk (PP&L)	4533	^b			0.0	2.0 ^m
Lake of the Woods	4960	3/29	46	14.3	3.3	10.7
Park Headquarters	6450	3/28	151	65.2	40.2	58.6
Pelican Guard Station	4150	3/21	29	10.2	0.0	0.8 ^m
Quartz Mountain	5320	3/28	31	12.4	0.0	4.9
Quartz Mountain (PP&L)	5504	3/28	31	12.9	3.0	5.8
Seven Lakes #1	6800	3/26	156	68.8	30.9	58.9
Seven Lakes #2	6200	3/25	129	53.0	24.8	48.2
State Line (Calif.)	5750	3/25	38	14.4	0.0	8.3 ^m
Strawberry	5760	3/28	38	13.8	2.3	6.0 ^h
Summer Rim	7200	3/28	55	21.0	11.3	18.0
Sun Mountain	5350	4/1	71	31.3	13.9	24.8
Sycan Flat	5500	3/25	36	13.7	0.0	5.3 ^m
Taylor Butte	5100	3/27	28	10.9	0.0	3.5
Yamsey (PP&L)	4600	^b			- -	- -

WATER SUPPLY OUTLOOK LAKE COUNTY, GOOSE LAKE WATERSHEDS OREGON

as of
APRIL 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Above average water supplies are in prospect for Lake County water users during the spring and summer of 1969.

SNOW COVER

The water content of the mountain snowpack is 163 percent of average for April first compared to 187 percent of average last month.

PRECIPITATION

The November-March precipitation for Lake County was 108 percent of normal and only 50 percent of normal for the month of March, as reported by the U. S. Weather Bureau.

SOIL MOISTURE

Upper watershed soils are well wetted and will absorb less than normal amounts of snowmelt.

RESERVOIR STORAGE

Drews Reservoir contains 41,800 acre feet compared to an April first average of 44,600 acre feet. No report is available for Cottonwood or Thompson Valley Reservoirs. All reservoirs should fill to capacity.

STREAMFLOW

Selected streamflow forecasts for the April-June period are as follows:

<u>Station</u>	<u>Volume</u>	<u>Percent of 1953-67 Average</u>
Chewaucan near Paisley	95,000 a.f.	126
Deep above Adel	114,000 a.f.	187
Drews Res. net Inflow (Apr-July)	70,000 a.f.	233
Twentymile near Adel	35,000 a.f.	214
Honey Creek near Plush	30,000 a.f.	195

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Chewaucan River	Excellent	Average
Crooked Creek	Excellent	Average
Deep Creek	Excellent	Average
Dry Creek	Excellent	Average
East Side Goose Lake	Excellent	Average
Guano Lake	Excellent	Average
Honey Creek	Excellent	Average
Lakeview Water Users Assn.	Excellent	Average
Rock Creek (Hart Mtn.)	Excellent	Average
Silver-Buck Creeks	Excellent	Average
Summer Lake	Excellent	Average
Thomas Creek	Excellent	Average
Twentymile Creek	Excellent	Average
Warner Lakes	Excellent	Excellent

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
Cottonwood	8.7	b	3.3	4.4*
Drews	63.0	41.8	47.8	44.6
Thompson Valley	19.5	b	- -	12.7 ^m
*Average for years of record after reconstruction (in base period).				

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3840	Chewaucan near Paisley	95	April-June	75	126
		105	April-Sept.	84	125
3715	Deep above Adel	114	April-June	61	187
		121	April-Sept.	65	186
3385	Drews Reservoir net Inflow ^d	70	April-July	30	233
		70	April-Sept.	30	233
3785	Honey near Plush	30	April-June	15.4	195
		31	April-Sept.	16.1	193
3900	Silver Creek near Silver Lake	22	April-July	18.6	118
		24	April-Sept.	20	120
3660	Twentymile near Adel	35	April-June	16.3	214
		38	April-Sept.	17.2	221

SOIL MOISTURE

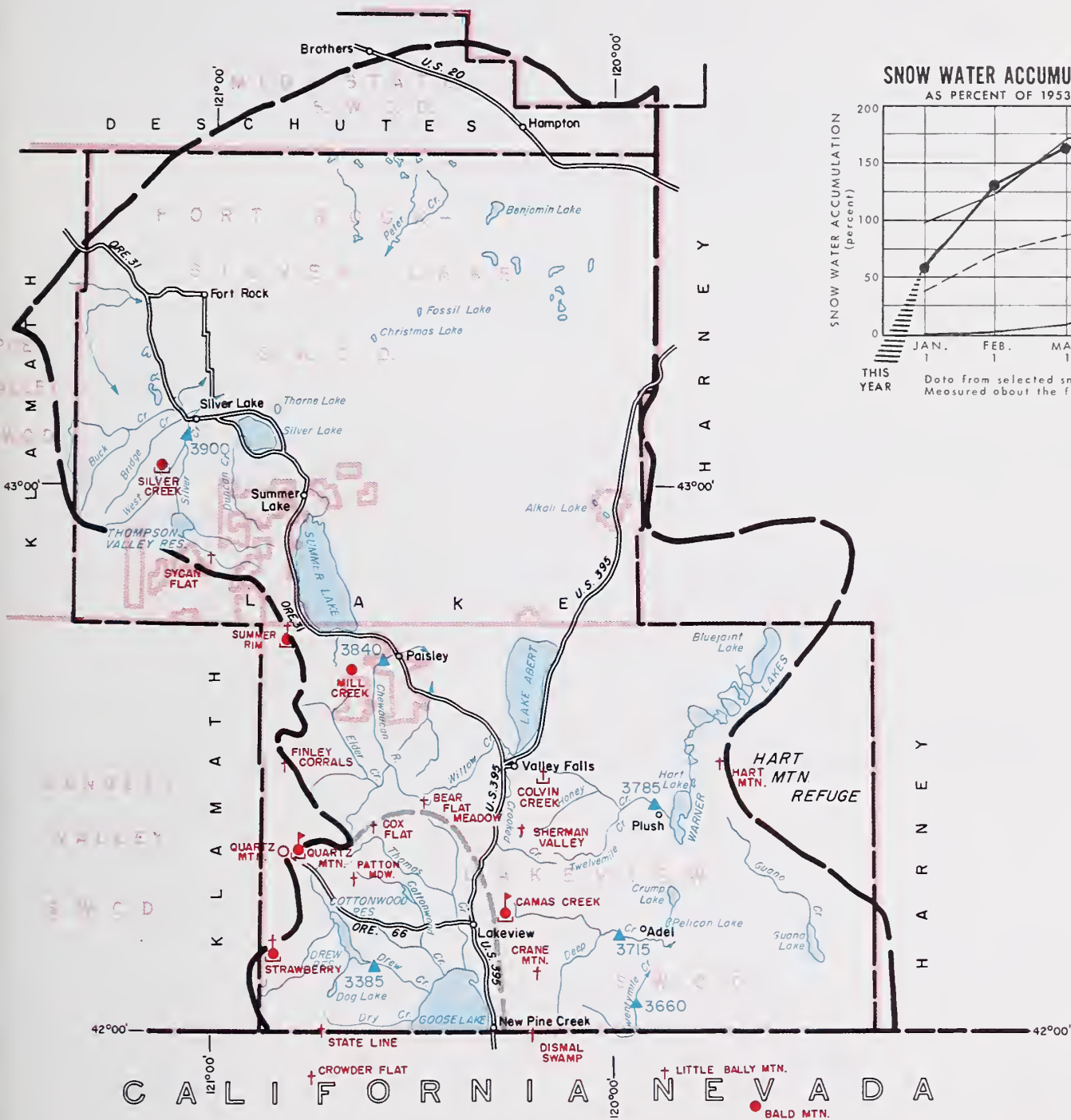
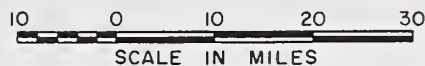
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Camas Creek	5720	42	14.5	2/27	12.9 ^f	12.9	12.8
Quartz Mountain	5320	48	15.3	3/28	8.6	8.2	9.3

SNOW

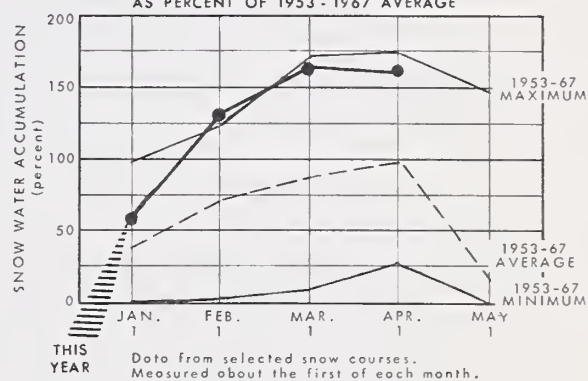
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1953-1967 AVERAGE
Adin Mountain (Calif.)	6350	4/2	47	20.2	12.3	11.5
Bald Mountain ^e (Nev.)	6720	3/26	29	8.6	0.0	2.5
Bear Flat Meadow ^e	5900	3/25	47	17.9	7.6	10.9 ^m
Camas Creek	5720	3/29	48	18.9	2.6	9.7
Cedar Pass (Calif.)	7100	3/28	58	23.6	12.2	15.0
Colvin Creek ^e	6550	3/25	38	14.4	T	- -
Cox Flat ^e	5750	3/25	44	16.7	0.0	6.7 ^m
Crane Mountain ^e	6020	3/25	24	9.1	2.9	8.7 ^m
Crowder Flat ^e (Calif.)	5200	3/25	22	8.4	0.0	1.4 ^m
Dismal Swamp ^e (Calif.)	7000	3/25	62	23.6	14.4	17.6 ^h
Finley Corrals ^e	6000	3/25	60	22.8	5.3	15.9 ^m
Hart Mountain ^e	6350	3/25	18	6.9	0.0	0.9 ^m
Little Bally Mountaine (Nev.)	6600	3/25	20	7.6	0.0	1.5 ^h
Mill Creek	6200	DISCONTINUED				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 11
AS PERCENT OF 1953 - 1967 AVERAGE



LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- Soil Conservation District Bdry
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- COPCO Snow Station
- ◊ Soil Moisture Station
- ⌈ Precipitation Gage

Lake County, Goose Lake Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Patton Meadow ^e	6800	3/25	66	22.8	12.0	14.5 ^m
Quartz Mountain (PP&L)	5504	3/28	31	12.9	3.0	5.8
Quartz Mountain	5320	3/28	31	12.4	0.0	4.9
Sherman Valley ^e	6600	3/25	53	20.1	5.7	11.6 ^m
Silver Creek	4900	3/28	11	3.9	0.0	1.2
State Line ^e (Calif.)	5750	3/25	38	14.4	0.0	8.3 ^m
Strawberry	5760	3/28	38	13.8	2.3	6.0 ^h
Summer Rim	7200	3/28	55	21.0	11.3	18.0
Sycan Flat ^e	5500	3/25	36	13.7	0.0	5.3 ^m

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

as of

APRIL 1, 1969

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Water users in the Harney Basin can expect above normal water supplies during the spring and summer of 1969.

SNOW COVER

Water content of the mountain snowpack in local watersheds is 145 percent of the April first average (1953-67) compared to 150 percent last month.

PRECIPITATION

Precipitation for the November 1 through April 1 period was 128 percent of normal. Precipitation for the month of March was only 42 percent of normal according to the U. S. Weather Bureau.

SOIL MOISTURE

The soil moisture in the mountain watersheds is at 93 percent of capacity in the south half of the county and 88 percent of capacity in the north half of the area.

STREAMFLOW

Forecasts of expected streamflow for April-September period of 1969 are as follows:

<u>Stream Station</u>	<u>Volume</u>	<u>% of 1953-67 Average</u>
Donner und Blitzen near Frenchglen	90,000 a.f.	164
*Silver near Riley	30,000 a.f.	167
Silvies near Burns	106,000 a.f.	127
Trout Creek near Denio	16,800 a.f.	224

*April-July period

Report prepared by

TOM GEORGE

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) April 1, 1969

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Catlow Valley	Excellent	Average
Cow Creek	Excellent	Average
Donner und Blitzen River	Excellent	Average
Mill-Coffeepot Creeks	Excellent	Average
Rattlesnake Creek	Excellent	Average
Silver Creek	Excellent	Average
Silvies River	Excellent	Average
Soldier-Prather Creek	Excellent	Average
Trout Creek	Excellent	Average
Whitehorse Creek	Excellent	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of April 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3960	Donner und Blitzen near Frenchglen	75	April-June	46	164
		90	April-Sept.	55	164
4030	Silver near Riley	30	April-July	17.9	167
3935	Silvies near Burns	103	April-June	79	130
		160	April-Sept.	83	127
4065	Trout near Denio	14.4	April-June	6.5	222
		16.8	April-Sept.	7.5	224

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Blue Mountain Spring	5900	42	16.9	3/28	11.6	12.6	11.8
Fish Creek	7900	48	15.0	b		10.5	10.7 ^f
Folly Farm	4450	30	12.5	b		- -	- -
Silvies	6900	48	16.4	3/27	15.3	13.7	14.5
Snow Mountain	6300	48	16.7	3/25	14.8	12.2	15.5
Starr Ridge	5150	36	10.6	3/26	10.6	10.5	10.5
Stinking Water	4800	48	21.9	3/25	21.5	- -	- -
Willow-Bald	5000	24	6.6	3/25	6.2	4.4	6.5

SNOW

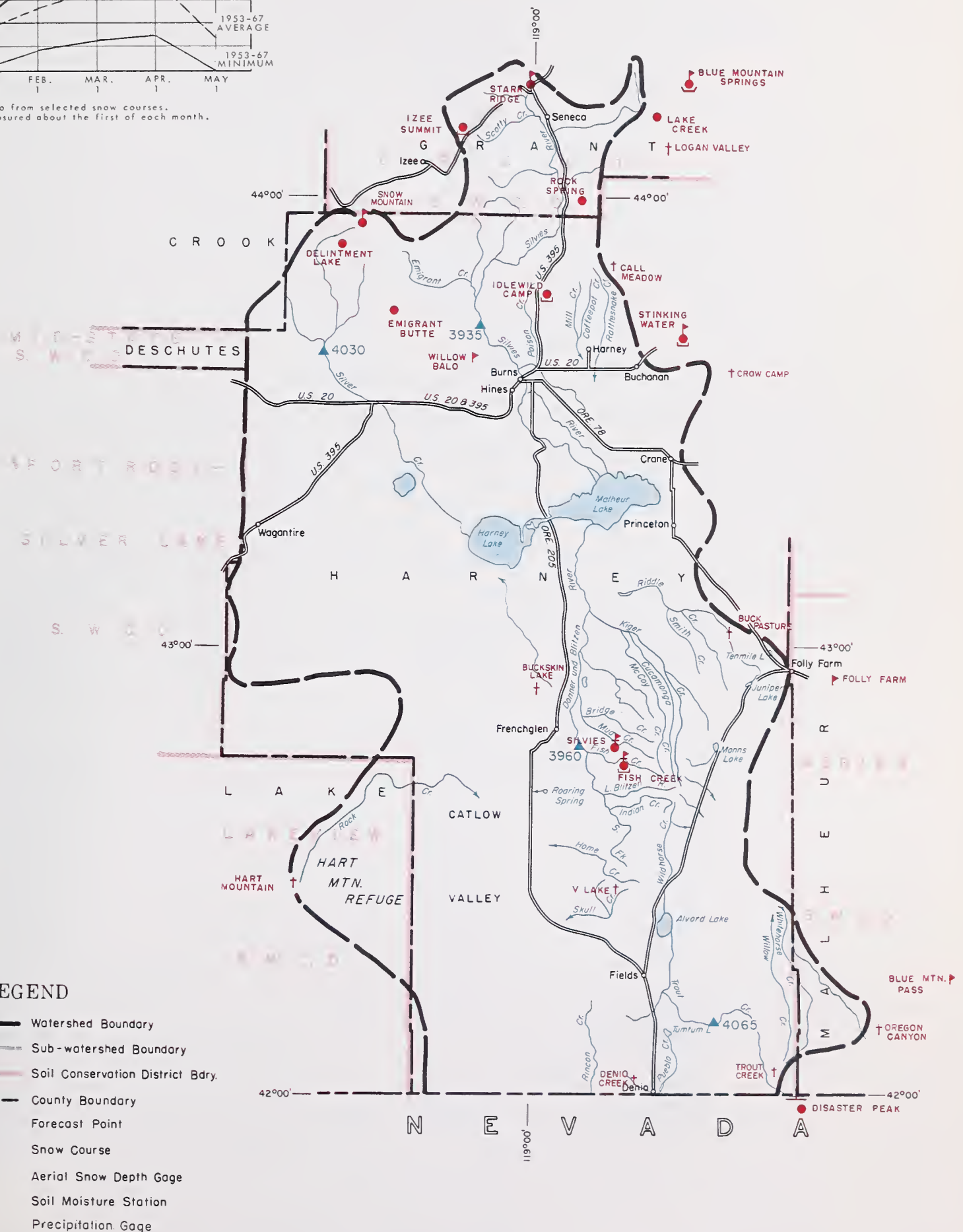
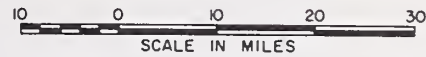
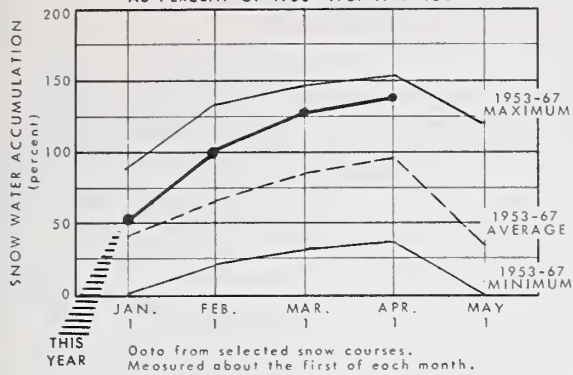
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Blue Mountain Springs	5900	3/28	44	16.9	8.8	15.5
Buck Pasture ^e	5700	3/24	18	6.8	0.0	2.2 ^m
Buckskin Lake ^e	5200	3/24	T	T	0.0	0.0 ^m
Call Meadows ^e	5340	3/24	24	9.1	0.0	3.0 ^m
Crow Camp ^e	5500	3/24	8	2.7	0.0	0.8 ^m
Delintment Lake	5600	3/25	29	9.8	0.0	6.8 ^h
Denio Creek ^e	6000	3/24	6	2.1	0.0	0.0 ^m
Disaster Peak (Nev.)	6500	3/25	65	28.7	1.2	9.5
Emigrant Butte	5000	3/25	22	6.9	0.0	1.8 ^h
Fish Creek	7900	3/27	81	32.2	15.2	25.0
Hart Mountain ^e	6350	3/25	18	6.9	0.0	0.9 ^m
Idlewild Camp	5200	3/31	17	5.5	0.0	4.0
Izee Summit	5293	3/26	24	8.4	0.0	7.2
Lake Creek	5120	3/28	28	10.0	2.2	9.7
Oregon Canyon ^e	6950	3/24	32	12.2	7.0	4.4 ^m
Rock Spring	5100	3/31	15	4.8	T	4.2
Silvies	6900	3/27	57	23.2	2.5	12.3
Snow Mountain	6300	3/25	43	16.1	3.3	12.9
Starr Ridge	5150	3/26	21	7.2	0.0	4.1
Stinking Water	4800	3/25	23	7.3	0.0	0.3 ^h
Trout Creek ^e	7800	3/24	33	12.5	2.4	7.9 ^m
"V" Lake ^e	6600	3/29	0	0.0	0.0	3.8 ^m

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

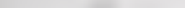

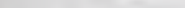
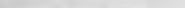





HARNEY BASIN WATERSHEDS

SNOW WATER ACCUMULATION IN AREA 12

AS PERCENT OF 1953-1967 AVERAGE



LEGEND

-  Watershed Boundary
 Sub-watershed Boundary
 Soil Conservation District Bdry.
 County Boundary
 Forecast Point
 Snow Course
 Aerial Snow Depth Gage
 Soil Moisture Station
 Precipitation Gage

SEC 360

SEC 360 ACI ELEV

Willow Creek

19D2P	Arbuckle Mountain	33	4S	29E	5400
18E1P	Anthony Lake	18	7S	37E	7125

UPPER JOHN DAY WATERSHEDS (4)

Upper John Day River

19D2P	Arbuckle Mountain	33	4S	29E	5400
18D12MP	Battle Mountain Summit	29	3S	31E	4340
19E2M	Beech Creek Summit	4	12S	30E	4800
18E16MP	Blue Mountain Springs	21	15S	35E	5900
18E13M	Blue Mountain Summit	6	12S	36E	5090
19E3MP	Derr	14	13S	32E	5670
18E27a	East Fork Canyon	15	15S	32E	5670
18E8a	Gold Center	21	9S	36E	5700
18E24a	Indian Cr. Butte	5	15S	33E	6550
19E9P	Izee Summit	28	16S	29E	5293
18D6P	Lucky Strike	28	3S	32E	5050
20E1MP	Marks Creek	55	12S	19E	4540
20E2	Ochoco Meadows	21	13S	20E	5200
18E7	Olive Lake	14	9S	33½E	6000
18D7	Schoolmarm	28	4S	34E	4775
19F1M	Snow Mountain	1	19S	26E	6300
19E7M	Starr Ridge	20	15S	31E	5150
18E9P	Tipton	34	10S	35½E	5100
18E25WP	Williams Ranch	20	15S	32E	4500

UPPER DESCHUTES, CROOKED WATERSHEDS (5)

Upper Deschutes River

Santiam River

22E1P	Detroit (City)	1	10S	5E	1610
22E2	Oetroit Dam	7	10S	5E	1560
21E6	Hogg Pass	24	13S	7½E	4755
21E4	Marion Forks	28	11S	7E	2730
22E3	Mill City	29	9S	3E	826
21E5	Santiam Junction	14	13S	7E	3990
21E3	Whitewater Bridge	28	10S	7E	2175

McKenzie River

21E8	Dead Horse Grade	13	16S	7E	3800
22E4	Lost Creek Ranch	24	16S	6E	1956
21E7	McKenzie	35	15S	7½E	4800
22E5	McKenzie Bridge	13	16S	5E	1372
22E6	Vida	28	16S	2E	800
21E9	White Branch Slide	15	16S	7E	2800

Middle Fork Willomette River

22F3	Cascade Summit	7	23S	6E	4880
22F6	McCredie Springs	36	21S	4E	2120
22F8	Meridian Dam	13	19S	1W	750
22F7	Okridge	16	21S	3E	1910
22F5	Railroad Overpass	21	26S	5E	2750
22F4	Salt Creek Falls	32	26S	5½E	4000
22F2P	Waldo Lake	15	21S	6E	5500
22F14*	Willamette Pass	33	24S	5½E	5600

East Fork Willamette River

21E11	Black Pine Spring	14	2S	10E	4300
21F8	Caldwell Ranch	30	21S	8E	4400
22F9	Cascade Summit	7	23S	6E	4880
21F11	Chemult	21	27S	8E	4760
21F20P	Deer Creek	25	20S	7E	4554
21F14	Fire Road	36	21S	11E	5050
21E6	Hogg Pass	24	13S	7½E	4755
21F4	Hungry Flat	30	18S	11E	4400
21F6*	Irish-Taylor	25	20S	6E	3500
21F17	Mowich	29	25S	8E	4700
21F10	New Crescent Lake	11	24S	6E	4800
21F19P	New Dutchman Flat #2	21	18S	9E	6400
21F13P	Paulina Lake	34	21S	12E	6330
21F15	Paulina Prairie	28	21S	11E	4285
21F9	Tangent	28	18S	10E	5400
21E15	Three Creeks Butte	27	16S	9E	5200
21E13	Three Creeks Meadows	34	16S	9E	5650
22F20P	Waldo Lake	15	21S	6E	5500
22F14*	Willamette Pass	33	24S	5½E	5600
22F15	Windigo Pass	32	25S	6E	5800

Crooked River					
19E3MP	Derr	14	13S	23E	5670
20E1MP	Marks Creek	25	12S	19E	4540
20E2	Ochoco Meadows	21	13S	20E	5200
19F1M	Snow Mountain	1	19S	26E	6300
19E4	Tamarack	8	15S	25E	4800

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS (6)					
Head River					
21D6P	Brooks Meadows	2	2S	10E	4300
21D25M	Cooper Spur	6	2S	10E	3490
21D1	Greenpoint Reservoir	28	2N	9E	3400
21D20	Knebal Springs	31	1S	11E	3850
21D23	Parkdale	5	1S	10E	1770
21D8*	Phlox Point	7	3S	9E	5400
21D4	Red Hill	20	1S	9E	4400
21D9	Still Creek	25	3S	8½E	3670
21D28	Switchback	28	1S	9E	3255
21D7P	Tilly Jane	15	2S	9E	6000
21D21	Ulrich Ranch Junction	28	1S	11E	3350
21D30	Umbrella Falls	3	3S	9E	5400
21D24	Upper Valley	20	1S	10E	2530

Mile Creeks - Mosier Creek					
21D6P	Brooks Meadows	2	2S	10E	4300
21D20	Kneal Springs	31	1S	11E	3850
21D21	Ulrich Ranch Junction	28	1S	11E	3350

Lower Deschutes River					
21D12	Clear Lake	29	4S	9E	3500
21D22	Clear Lake Experimental	29	4S	9E	3500
21E6	Hogg Pass	24	13S	7½E	4755

LOWER COLUMBIA WATERSHEDS (7)					
Sandy River					
21D8*	Phlox Point	7	3S	9E	5400
21D9	Still Creek	25	3S	8½E	3670

WILLAMETTE WATERSHEDS (8)					
Clockomos River					
21D3	Clackamas Lake	35	5S	8½E	3400
21D12	Clear Lake	29	4S	9E	3500
21D14P*	Peavine Ridge	14 & 15	6S	7E	35DD
21D8*	Phlox Point	7	3S	9E	5400
21D9	Still Creek	25	3S	8½E	3670

22F9	Champion	12	23S	1E	4500
22F10	Golden Curry Creek	1	23S	1E	3135
22F13	Laying Creek R. S.	31	21S	1E	1200
22F12	Lund Park	22	22S	1E	1740
22F11	Weaver Creek	35	22S	1E	2440

Mary's River					
23E1	Mary's Peak	21	12S	7W	3620

ROGUE, UMOPOUA WATERSHEDS (9)					
Rogue River					
23G4P	Althouse	17	41S	7W	4530

Goose Lake				
20G15a	Bear Flat Meadow	27	36S	19E 5900
20G8MP	Camas Creek	5	39S	21E 5720
20G11A	Cox Flat	15	37S	18E 5750
20G16a	Crane Mountain	13	40S	21E 6020
20H2a	Crowder Flat (Cal)	30	47H	11E 5200
20H3a	Dismal Swamp (Cal)	31	48H	16E 7200
20G17a	Patton Meadow	28	38S	18E 6800
20G6MP	Quartz Mountain	2	38S	16E 5320
20H1a	State Line (Cal)	21	48H	11E 5750
20G9AP	Strawberry	4	40S	16E 5760
Abert Lake				
20G15a	Bear Flat Meadow	27	36S	19E 5900
20G16ap	Colvin Creek	12	36S	21E 6550
20G11A	Cox Flat	16	37S	18E 5750
20G14	Finley Corrals	11	36S	16E 6000
20G4a	Mill Creek	3	34S	17E 6200
20G6MP	Quartz Mountain	2	38S	16E 5320
20G10a	Sherman Valley	15	37S	21E 6600
Summer Lake				
20G2AP	Summer Rim	15	33S	16E 7200
Silver Lake				
21F12P	Silver Creek	25	6	23S 13E 4900
20G13a	Sycan Flat	25	31S	14E 5500
Warner Lake				
20G8MP	Camas Creek	5	39S	21E 5720
20G16a	Crane Mountain	13	40S	21E 6020
20H3a	Dismal Swamp (Cal)	31	48H	16E 7200
19G1a	Hart Mountain	1	36S	25S 6350
20G10a	Sherman Valley	15	37S	21E 6600
Guano Lake				
19H1	Bald Mountain (Nev)	17	45H	21E 6720
19G1a	Hart Mountain	1	36S	25S 6350
19H4a	Little Belly Mt. (Nev)	8	43H	19E 6600
HARNEY BASIN WATERSHED (121)				
Silvies River - Silver Creek				
18F7a	Call Meadows	29	20S	33E 5340
19F2	Oellintment Lake	28	19S	26E 5600
19F3	Emigrant Butte	14	21S	27E 5000
18F3P	Idlewild Camp	27	20S	31E 5200
19E3P	Lee Summit	28	16S	29E 5233
18F1	Rock Spring	23	18S	32E 5100
19F1M	Snow Mountain	1	19S	26E 6300
19E7M	Starr Ridge	20	15S	31E 5150
18F4MP	Stinking Water	33	21S	34E 4800
19F4a	Willow-Bald	19	22S	29E 5000
Donner Und Blitzen River				
18F6a	Buck Pasture	21	23S	35E 5700
18G2HDA	Fish Creek	4	33S	32E 7900
19G1a	Hart Mountain	1	36S	25S 6350
18G1HDA	Silvies	35	32S	32E 6900
18G7a	myr Lake	31	35AS	32NE 6600
Trout and Whitehorse Creeks				
18G5a	Denio Creek (Nev)	14	41S	34E 6000
18H1	Disaster Peak	8	47H	34E 6500
17G5a	Oregon Canyon	9	40S	40E 6950
18G5a	Trout Creek	10	41S	38E 7800
Horney Lake				
18G5a	Buckskin Lake	2	30S	30E 5200



The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - Weather Bureau
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
 - National Park Service
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
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*"The Conservation of Water begins
with the Snow Survey"*